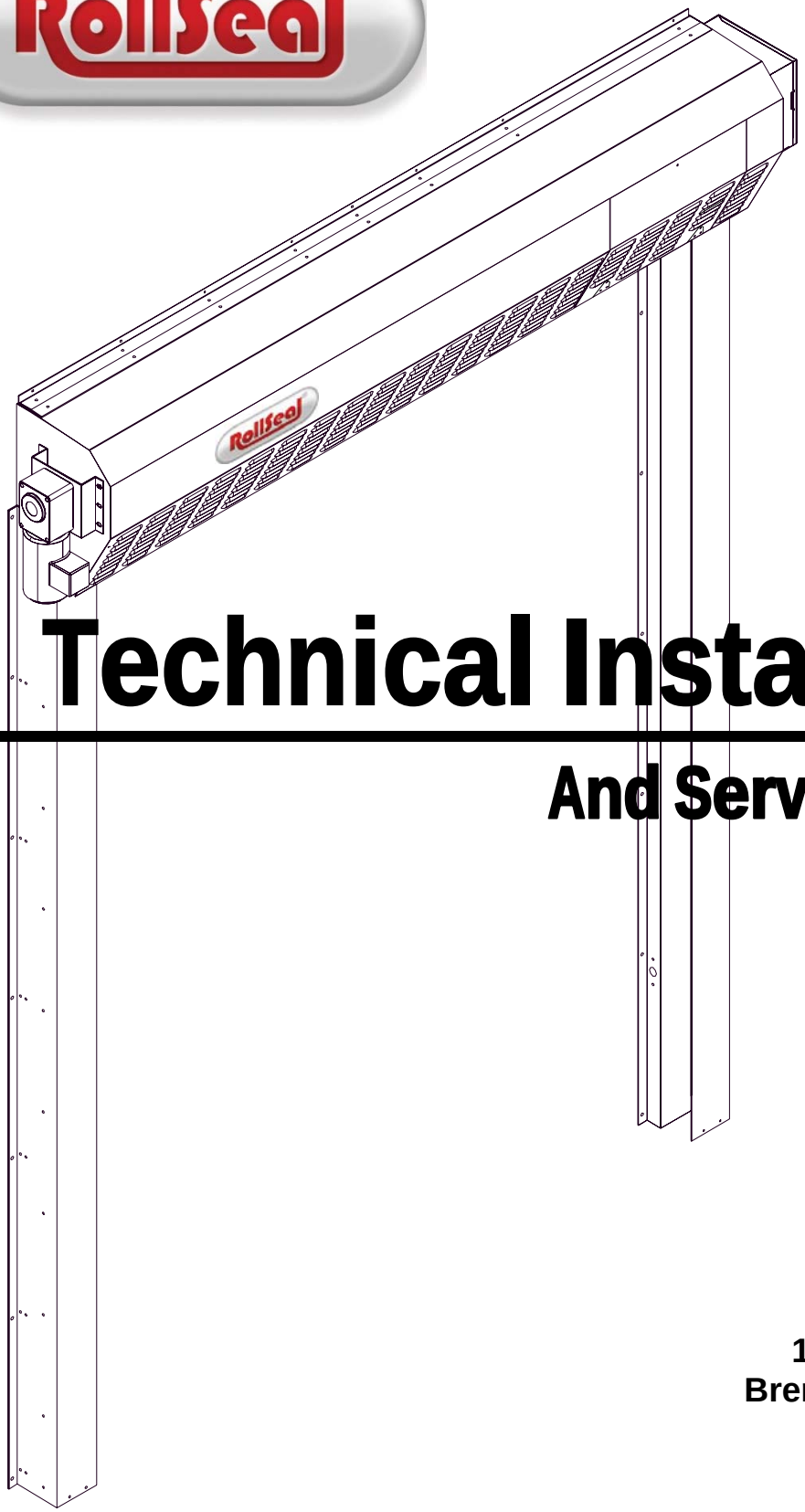

Technical Installation

And Service Manual

RollSeal
1733 County Road 68
Bremen, Alabama 35033
256-287-7000

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1 Ratings and Specifications RS-500 Door

- Motor Ratings: 230 VAC, Three Phase, 1/4 HP
- Door approved by the NSF (National Sanitation Foundation)
- Motor must be connected through Controller SC-325. See SC-325 Controller Manual (4801-5156).

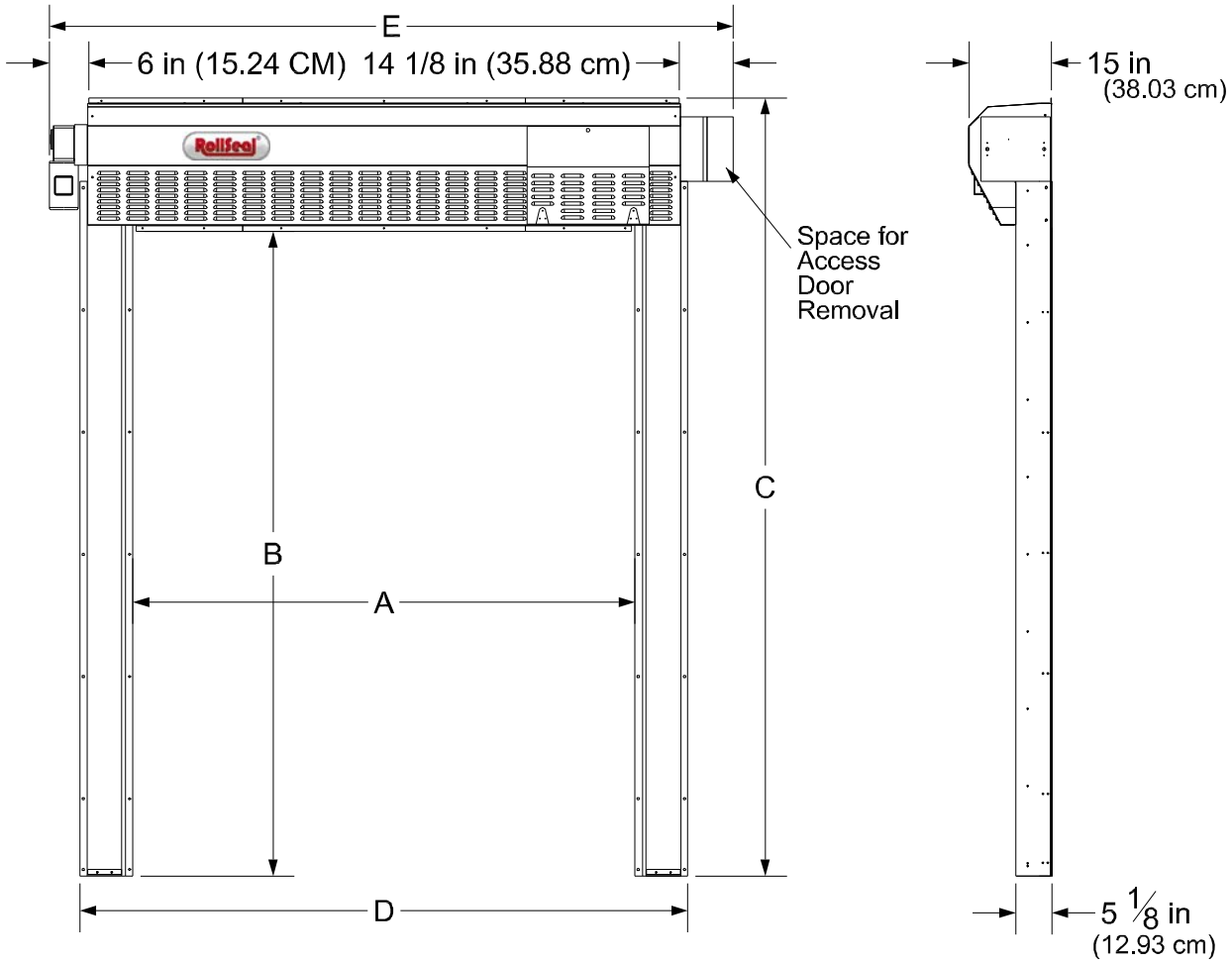


***TABLE 1 RS 500 Door Standard Dimensions*:**

WIDTH Related Dimensions

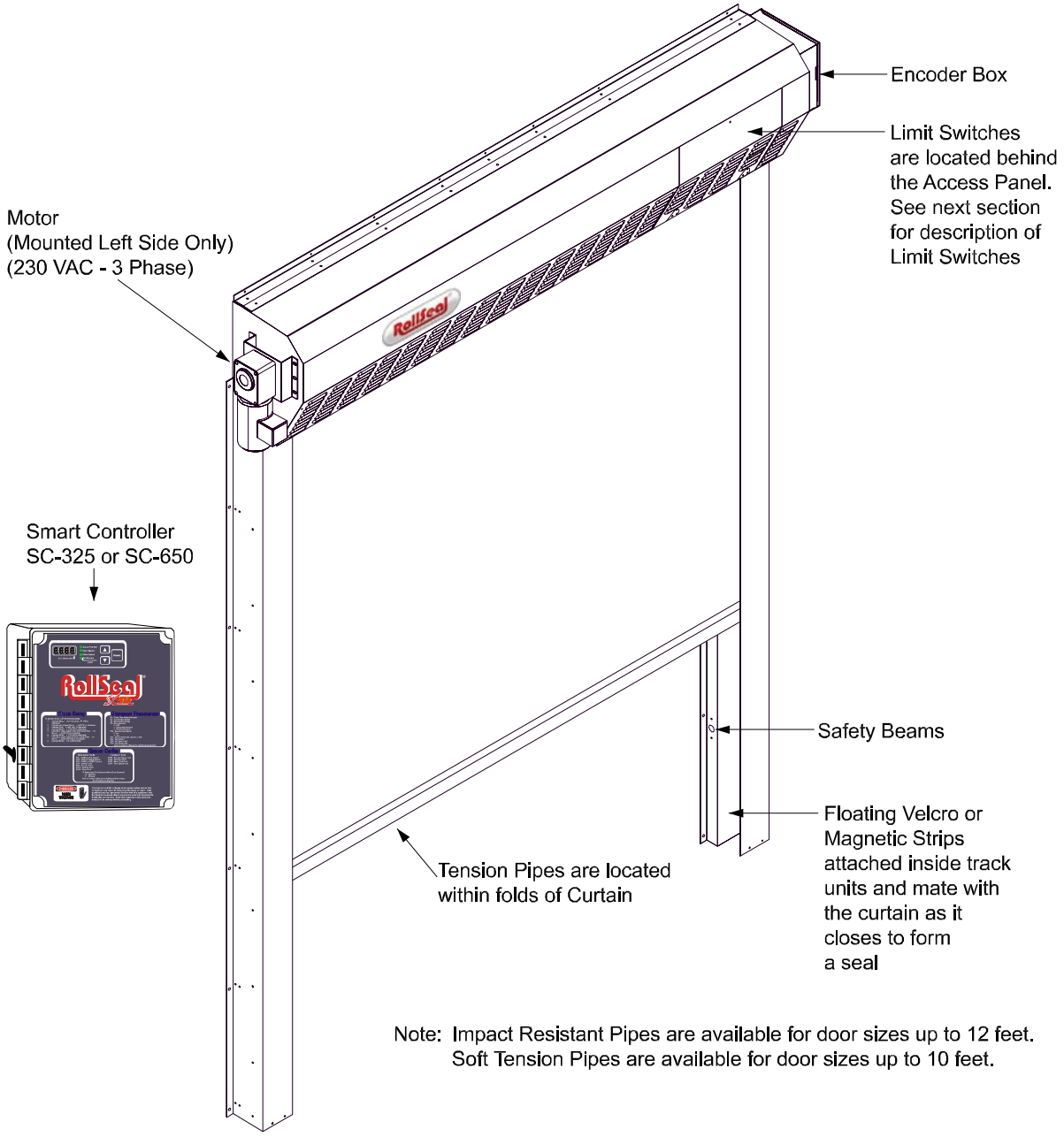
RS-500 Door Width	A			D			E		
	Ft	In	cm	Ft	In	cm	Ft	In	cm
4'(W)	4	0	122	6	5-1/2	197	6	8-15/16	206
5'(W)	5	0	153	7	5-1/2	227	7	8-15/16	236
6'(W)	6	0	183	8	5-1/2	258	8	8-15/16	267
6'6"(W)	6	6	198	8	11-1/2	273	9	2-15/16	282
7'(W)	7	0	214	9	5-1/2	288	9	8-15/16	297
8'(W)	8	0	244	10	5-1/2	319	10	8-15/16	328
10'(W)	10	0	305	12	5-1/2	380	12	8-15/16	388
11'(W)	11	0	335	13	5-1/2	410	13	8-15/16	419
12'(W)	12	0	366	14	5-1/2	441	14	8-15/16	449

HEIGHT Related Dimensions

RS-500 Door Height	B			C		
	Ft	In	cm	Ft	In	cm
7'(H)	7	0	214	8	8-11/16	266
7'6"(H)	7	6	229	9	2-11/16	281
8'(H)	8	0	244	9	8-11/16	296
9'(H)	9	0	275	10	8-11/16	327
10'(H)	10	0	305	11	8-11/16	357
11'(H)	11	0	335	12	8-11/16	387
12'(H)	12	0	366	13	8-11/16	418

2 Physical Description/Drawing

Installation of a RollSeal RS-500/600 Automatic Door involves, at a minimum, connecting to the Smart Controller (SC-325) that connects to the AC power, the door motor, the Up/Down button, and the safety beam. Other accessories can be added such as a remote IR sensor, remote radio link, and door movement indicators such as lights and bells.


Encoder Box
Limit Switches are located behind the Access Panel. See next section for description of Limit Switches
Motor (Mounted Left Side Only) (230 VAC - 3 Phase)
Smart Controller SC-325 or SC-650
Safety Beams
Floating Velcro or Magnetic Strips attached inside track units and mate with the curtain as it closes to form a seal
Tension Pipes are located within folds of Curtain
Note: Impact Resistant Pipes are available for door sizes up to 12 feet.
Soft Tension Pipes are available for door sizes up to 10 feet.

3 Use of Equipment

The RollSeal RS-500/600 Door is an automatic motorized curtain enclosure for a doorway.

4 Installation

4.1 Tools Required

3/8 in. (10 mm) Power screwdriver (portable) 3/16 in. (5 mm) Drill bit and power drill 3/8 x 1 in. Bolts and nuts (supplied)	Socket Hammer Tape measure Carpenter's level
NOTE: Other Tools May Be Required According To Installation.	

4.2 Overview

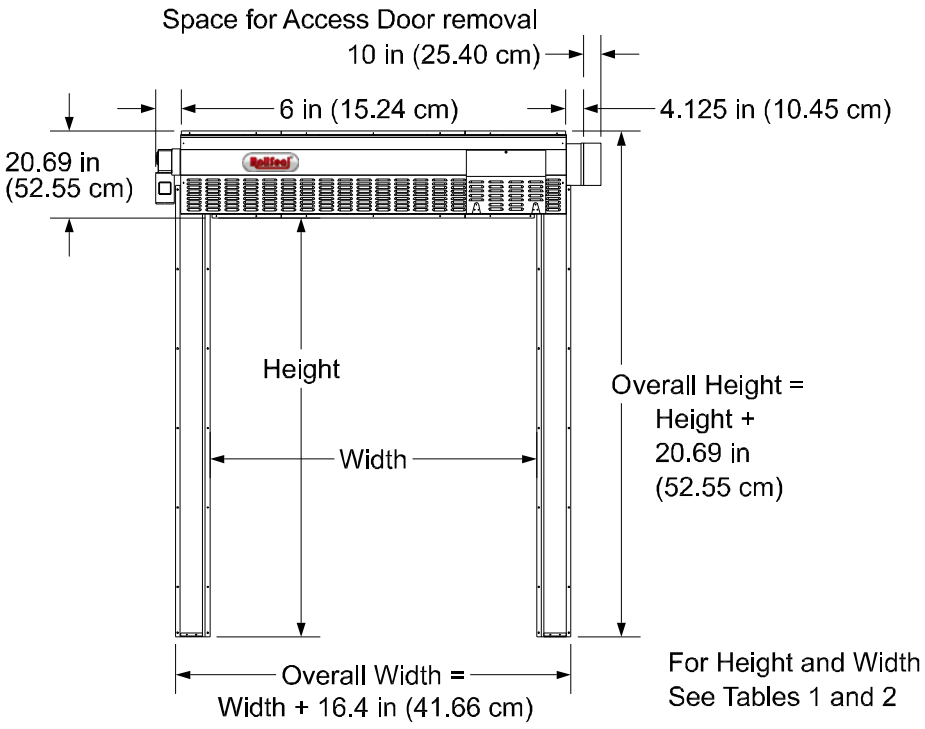
The RS-500/600 Door is shipped with pre-assembled vertical members (left track and right track), and a pre-assembled horizontal member (head unit). When components are received, check for damaged, loose or missing parts. If there are damaged or missing parts contact your RollSeal distributor immediately. Please read and understand all instructions in this manual before beginning installation.

4.3 Adjusting the Clear Opening

Locate your particular system in **Table 1, Page 3**. Read the value of height and width of the clear opening for the door size that you are installing. This gives the required dimensions of the clear opening. If necessary, adjust the dimensions of the mounting posts or framing members to the height and width of your RS-500/600 Door System as shown in **Diagram 4A**. Refer to **Section 4.4 (Page 6, Diagram 4B)** for details of attaching door to framing members. Framing material must provide suitable support for attachment of screws.

Make sure that mounting posts or framing members are positioned so that the screw holes of the outer flanges of the vertical members will align with the mounting posts or framing (**Section 4.4**, **Page 6, Diagram 4B)**. Make sure that there is room for the motor and control box without encountering any obstructions.

Diagram 4A



NOTE: Allow 1' (30.4 cm) minimum, preferably 18" (45.7 cm) clearance above the Head Unit for future panel maintenance or replacement.

4.4 Attachment Points of Door

When sizing the clear opening for attachment of the door, pay close attention to the following guidelines. Door flanges have pre-drilled holes that serve as mounting points of door.

Flange widths are shown in **Diagram 4B**.

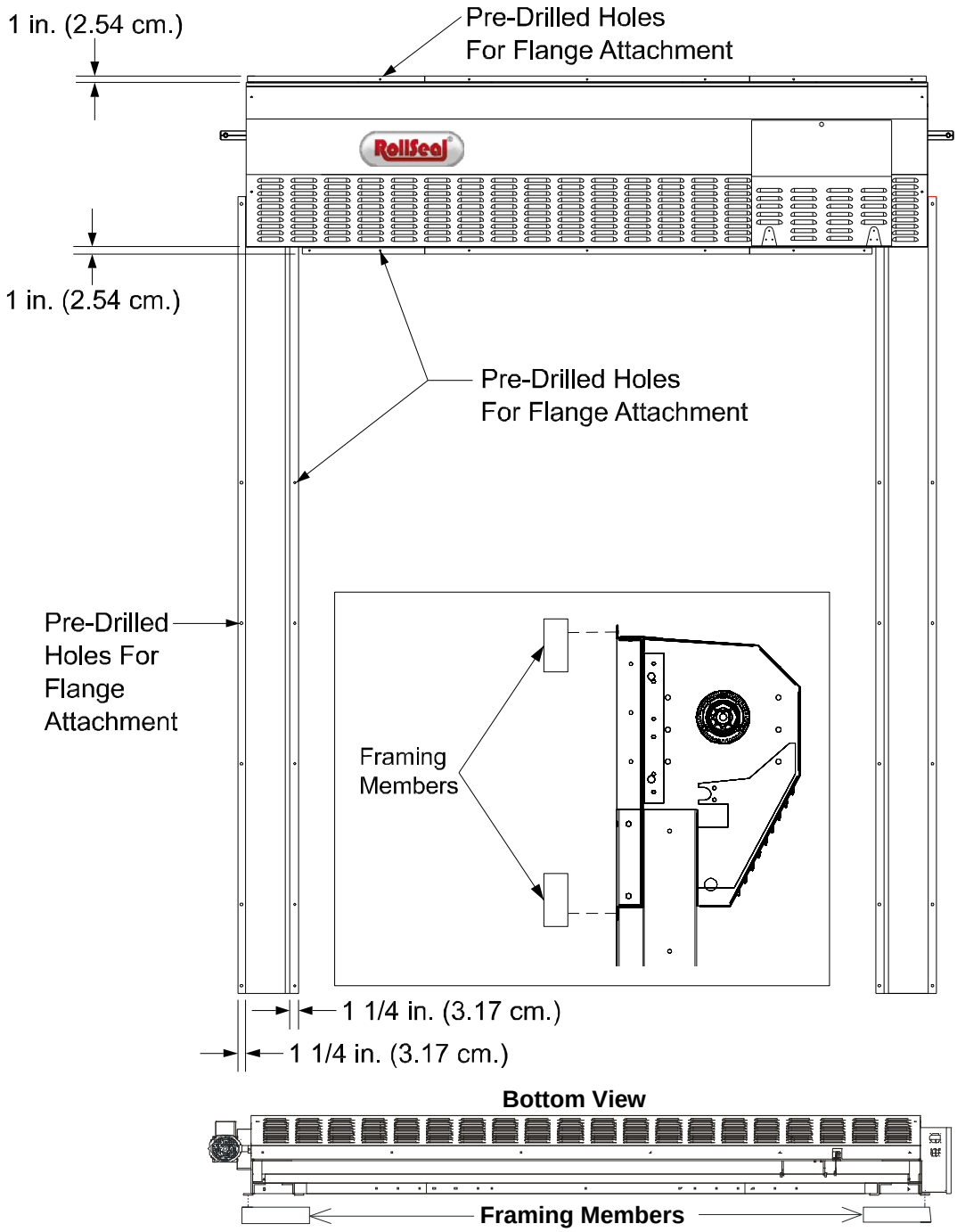
1. Make sure that door assembly is plumb and square.

2. The top unit has a top flange and a bottom flange. Make sure these flanges overlap framing.

3. The vertical members have inner flanges and outer flanges. The outer flanges have pre-drilled holes that serve as attachment points. Make sure the outer flanges overlap framing.

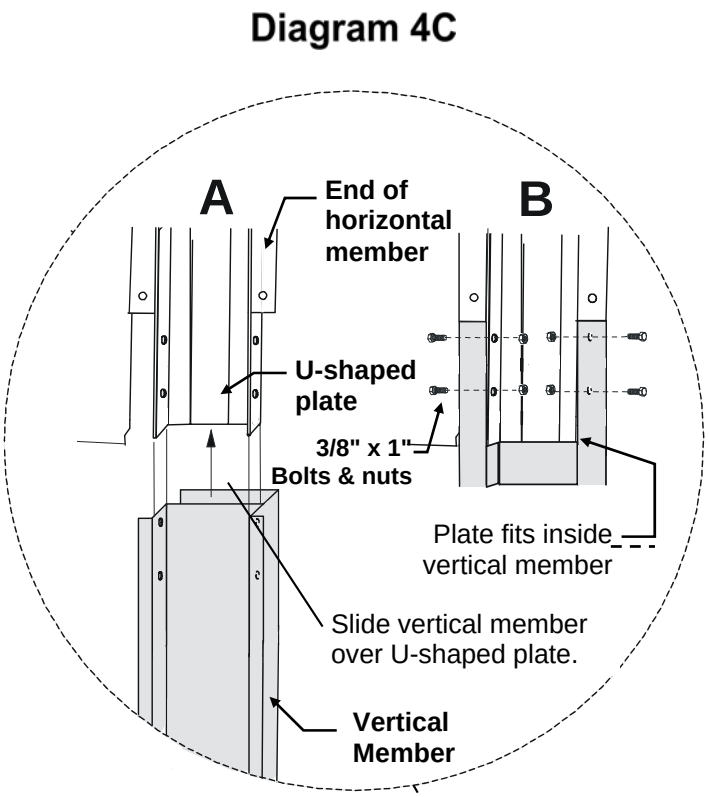
4. When door is raised in front of clear opening **(Section 4.7, Page 8)**, flanges must be flush against framing for attachment of screws.

Diagram 4B



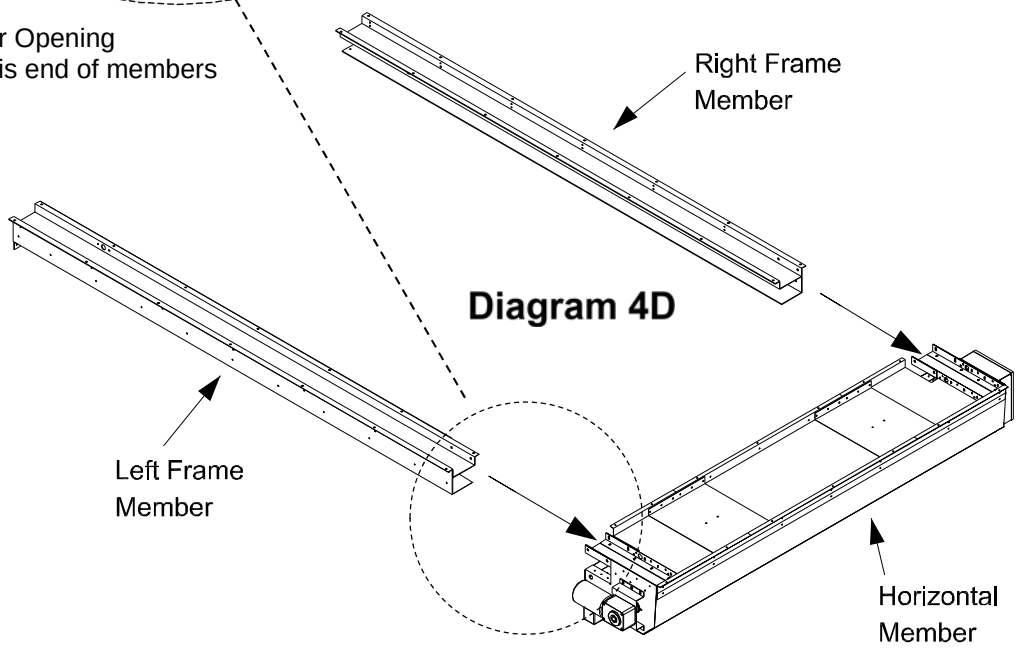
4.5 Assembly of Parts

Arrange the horizontal member, left vertical member (left track), and right vertical member (right track) on the floor in front of the clear opening as shown in **Diagram 4C**. The curtain side of the horizontal member and each vertical member faces down.



On each end of the horizontal member is a U-shaped plate that fits inside each vertical member. The U-shaped plate has four bolt holes, two on the inside and two on the outside flanges that match bolt holes in the vertical member. See **Diagram 4C**.

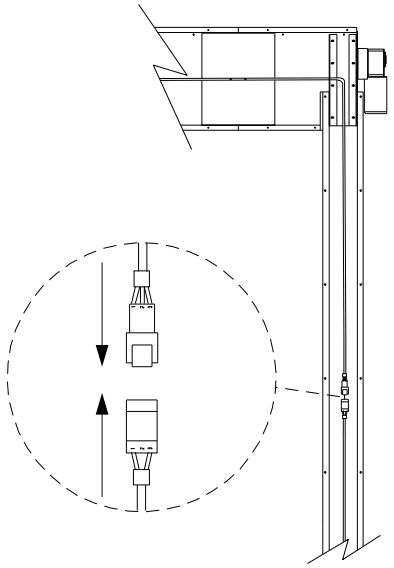
1. Align the vertical member with the U-shaped metal plate at end of horizontal member.
2. Slide the vertical member onto the outside of the U-shaped metal plate of the horizontal member as shown in A.
3. Insert bolts through bolt holes as shown in B. Install nuts. Tighten bolts & nuts securely.



Placement of Parts for Assembly
Lay left track, right track, and horizontal member face down in front of the clear opening as shown.

4.6 Infrared Sensor Connectors

Diagram 4E



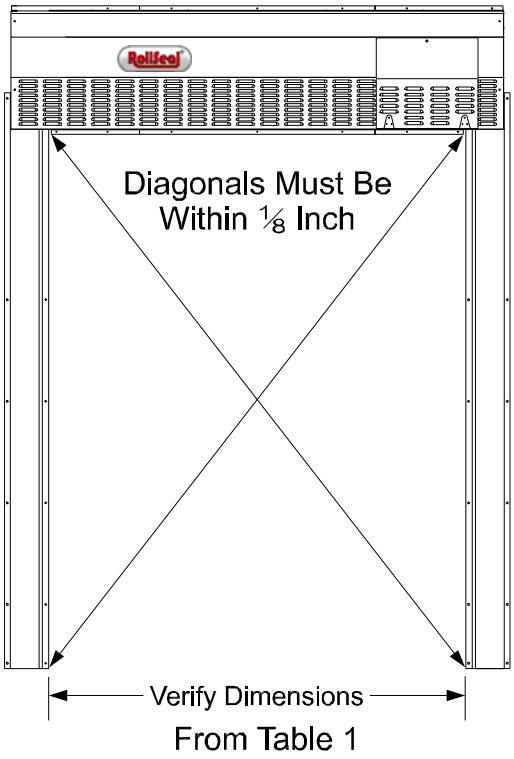
Located at the bottom of each vertical member is an infrared detector. The detector on each vertical member operates as a safety device if the infrared beam is interrupted. Door can be set to stop if beams are broken while closing, or to stop and reverse to the full open position. Refer to the RollSeal SC-325 Controller Manual for more information.

1. Locate female connector on vertical member. This connector is attached to the infrared detector.
2. Locate male connector on horizontal member. Unroll cable until connectors meet. **Pull enough slack for photo-eye replacement and troubleshooting purposes.**
3. Plug connectors together. Make sure connectors interlock.
4. Repeat for both infrared detectors.
5. Cable ties and adhesive mounts are supplied to secure wire to the inside of tracks.

NOTE: For each vertical member, unroll respective sensor cable attached to horizontal member until cable reaches the connector attached to the vertical member. Plug connectors together. Some slack must be left at photo eyes for replacement purposes.

4.7 Fastening Door Assembly to Clear Opening

Diagram 4F



1. Use a tape measure and make sure that the overall height and overall width of the clear opening meet the requirements: Overall Height = Height + 20.688 in. (52.55 cm), Overall Width = Width + 16.4 in. (41.66 cm). Reference **Table 1, Page 3** and **Diagram 4A, Page 5**.

2. Make sure that door assembly is plumb and square. **See Diagram 4F**.

3. Center door assembly on clear opening. Align the bottom of each vertical member with the respective framing board or posts of the clear opening.

Note: The vertical members should be aligned so that their outer flanges will exactly overlap with the framing boards or posts when the door assembly is raised into position.

4. Assemble workers and each side of the door assembly. See **Diagram 4G**.

IMPORTANT: SLOWLY LIFT TOP OF DOOR ASSEMBLY TO RAISE THE DOOR.

Diagram 4G

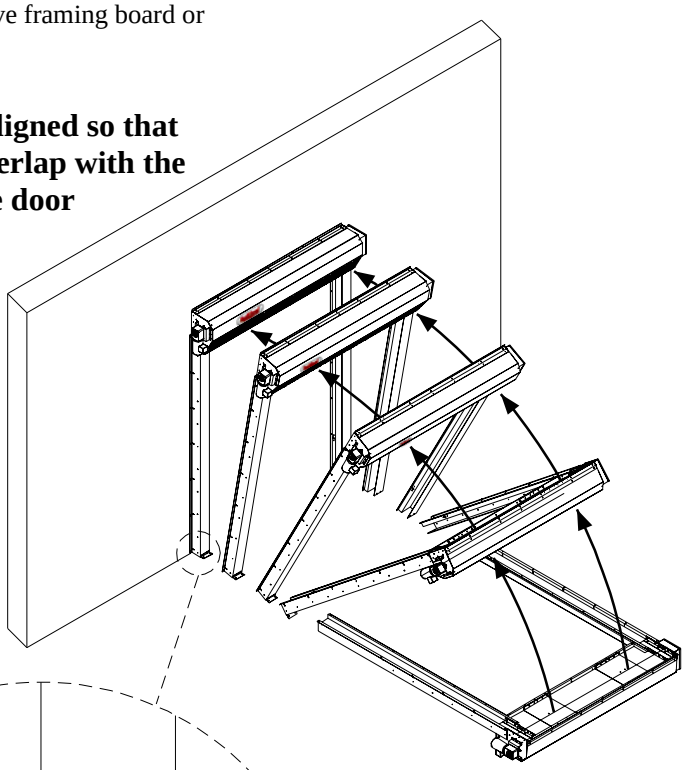
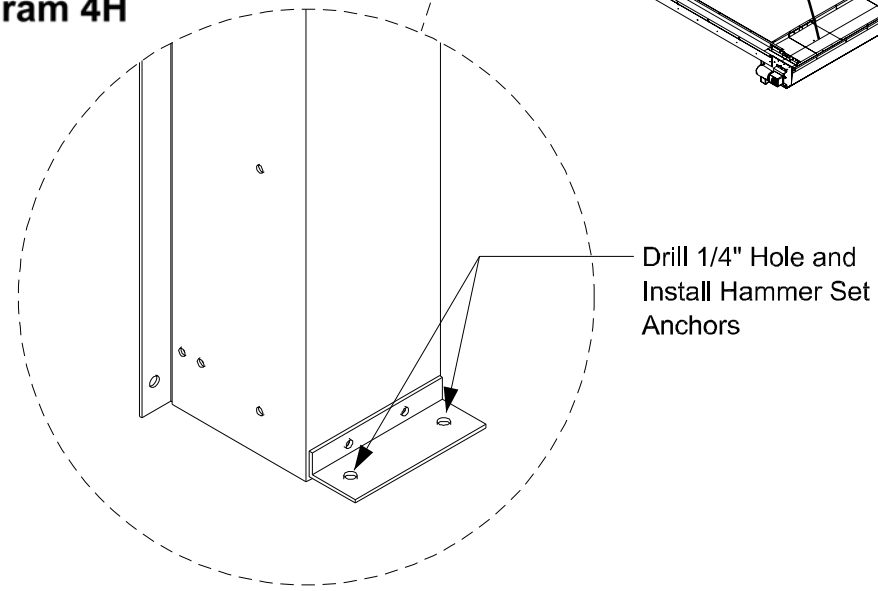


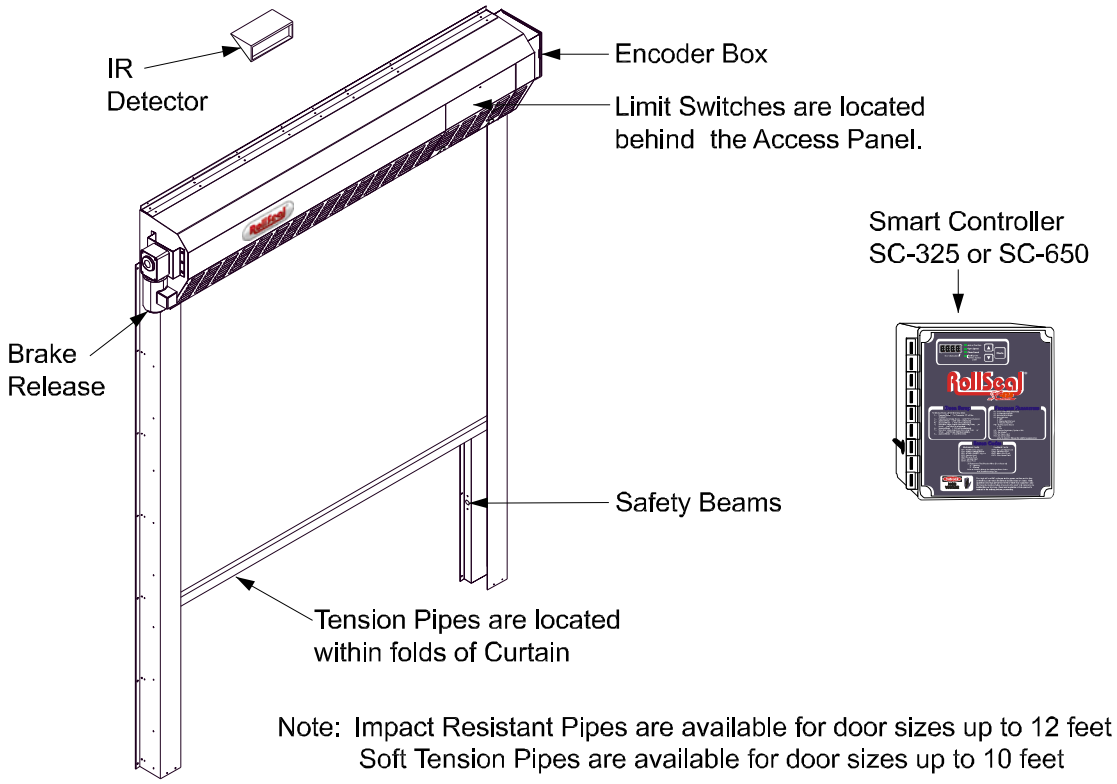
Diagram 4H



5. Lean door assembly upright against clear opening.
6. Carefully press flanges of the door assembly flush against faces of framing boards or posts.
7. Fasten Tek screws (in steel) or lag screws (in wood) through the flanges on sides of door assembly. Securely tighten all screws.
8. On the lower and upper flanges of the horizontal member there are attachment points for fastening screws. Fasten Tek screws (in steel) or lag screws (in wood) through the holes. This secures the top of the door to the clear opening.
9. Locate the two floor mounting holes at the bottom of the left & right tracks. **See Diagram 4H**.
10. Drill a 1/4" hole and install Hammer Set Anchors (1002-6030) in both right and left tracks. **See Diagram 4H**.
11. This completes fastening of the door assembly to the clear opening.

4.8 Typical Smart Controller Installation

A typical installation of the Smart Controllers involve, at a minimum, connections to AC Power, the door motor, the Up/Down button, and the Safety beam. Other accessories can be added such as a remote IR sensor, a remote radio link, and door movement indicators such as lights and bells.



Note: Impact Resistant Pipes are available for door sizes up to 12 feet
Soft Tension Pipes are available for door sizes up to 10 feet

5 Controller Installation and Setup

5.1 Tools Required

Small Screwdriver	Standard Screwdriver	Wire Strippers

5.2 Installation Instructions

1. Unpack system, and check that all components are present.
   - 1 RollSeal Smart Controller
   - 1 Installation Kit
   - 1 Manual
2. Hang the controller with four screws at the desired location.
3. Make sure all power supplies are disconnected before breaking any wires, or reaching into the controller enclosure.
4. Determine the required Powering Voltage whether 115 VAC (SC-325 only) or 230 VAC.
5. If the desired power supply voltage is different from the factory preset/prewired voltage, the appropriate version Brake Rectifier must be ordered separately, field-installed on the RS Door, and the SC controller switch & jumper settings changed accordingly. The SC-325 Controllers are factory preset to 115 VAC and the RS-500 Doors factory prewired to require a 115 VAC power supply. The SC-650 Controllers are factory preset to 230 VAC and the RS-600 Doors factory prewired to require a 230 VAC power supply. The SC-325 Controller can be field upgraded to accommodate either 115 VAC or 230 VAC power supply. Refer to **Section 6** for the SC Controller power wiring, switch setting, and jumper setting and **Section 15** for the Motor Brake Rectifier part numbers and wiring information.

⚠ Warning!

Only Qualified Electrical Personnel Familiar With The Construction And Operation Of This Equipment And The Hazards Involved Should Install, Adjust, And/Or Service This Equipment.
Read And Understand This Manual In Its Entirety Before Proceeding.
Failure To Observe This Precaution Could Result In Severe Bodily Injury Or Death!

⚠ Warning!

Dangerous High Voltages!
Allow Approximately 5 Minutes For The Controller To Power-Down Before Changing Switch Setting, Jumper Placement, Or Wiring.

6. Connect power. See **Section 6.**
7. Connect AC/DC Harness hook up.
8. Turn the controller on.
9. Set the Open and Closed Speed and Limits, the Acceleration and Deceleration Ranges, Close Time Delay and Switch positions. See **Section 8** and Manual No 4801-5156 for more information.

6 Connecting AC Power to the Smart Controller

The SC-325 Controllers are factory preset to **115 VAC** and the RS-500 Doors are factory prewired to require a **115 VAC** power supply.

The SC-650 Controllers are factory preset to **230 VAC** and the RS-600 Doors are factory prewired to require a **230 VAC** power supply.

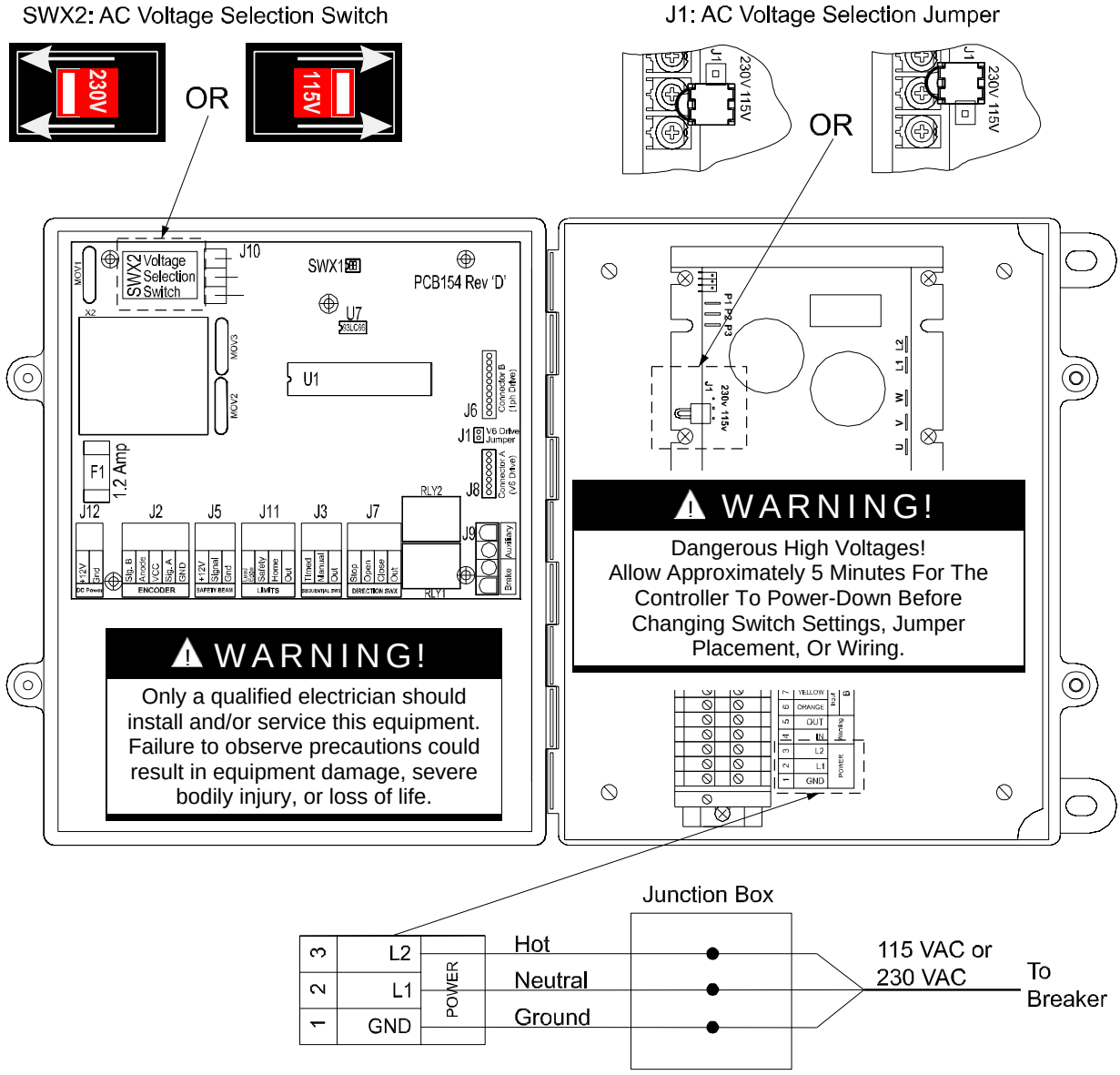
The SC-325/SC-650 Controllers and RS-500/600 Doors can be field upgraded to accommodate either 115 VAC or 230 VAC power supply. If the desired power supply voltage is different from the factory preset/prewired voltage, the appropriate version Brake Rectifier must be ordered separately, field-installed on the RS Door, and the SC Controller switch & jumper settings changed accordingly.

⚠ WARNING!

Ensure the Drive AC Selection Jumper and PCB 154 AC Selection Switch Are Set Accordingly BEFORE Power Is Applied To The Controller.

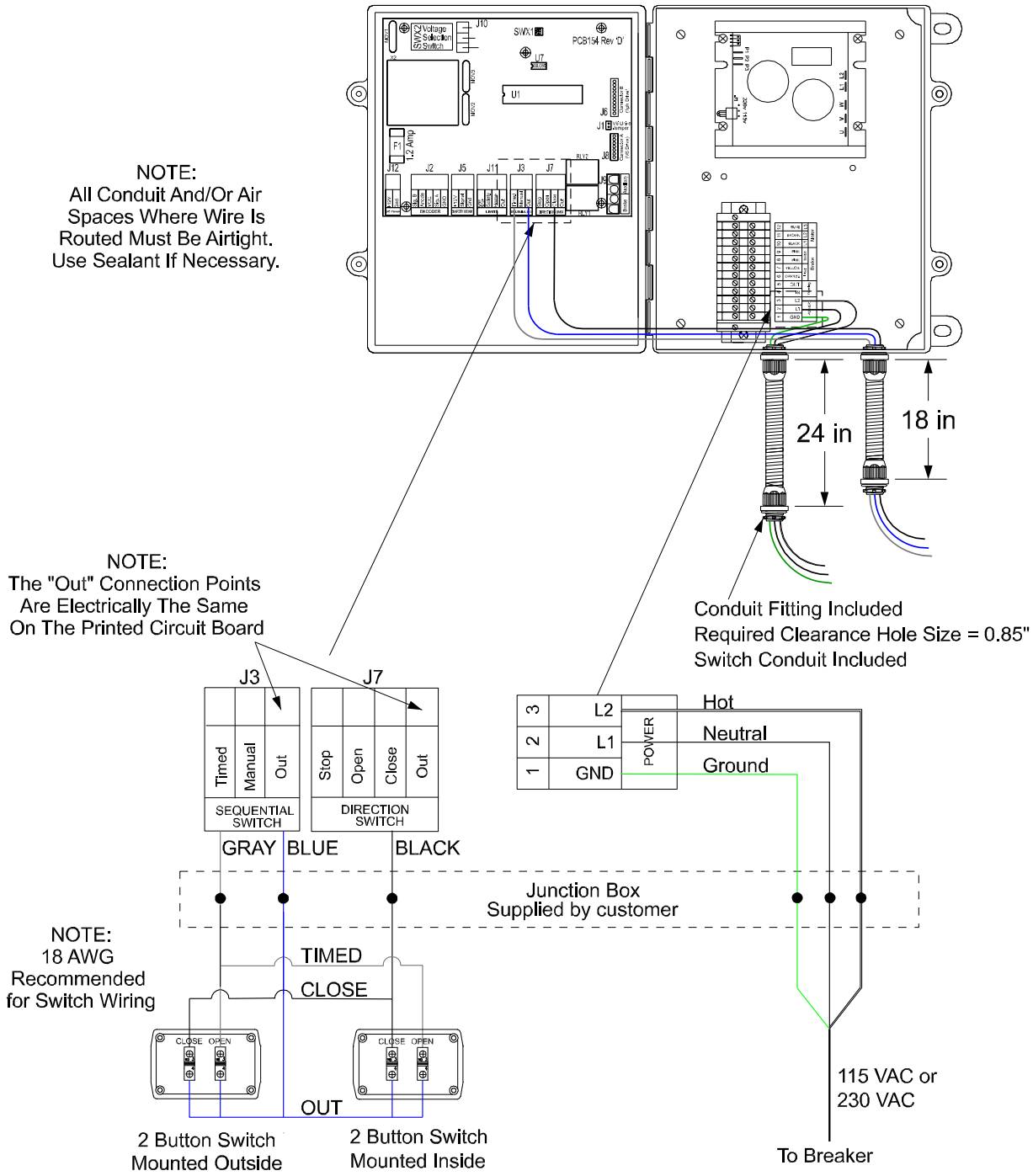
Diagram 6A

Smart Controller – Right & Left Side Compartments



7 Connecting Switches to the SC-325 Wiring Option "-W01"Controller

P/N 6607-8057 and 6607-8058



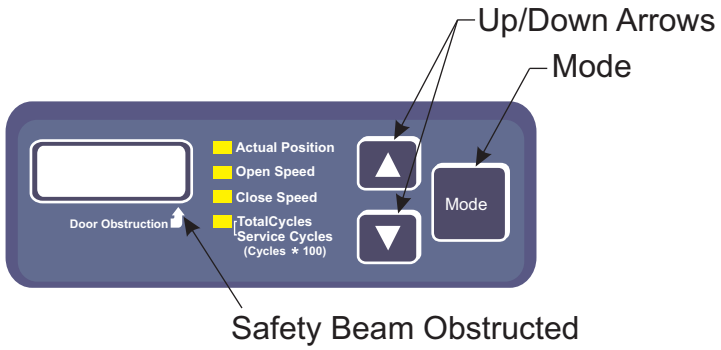
8 Door Setup Guide

The following programming adjustments are performed on the SC-325 or SC-650 Controller.

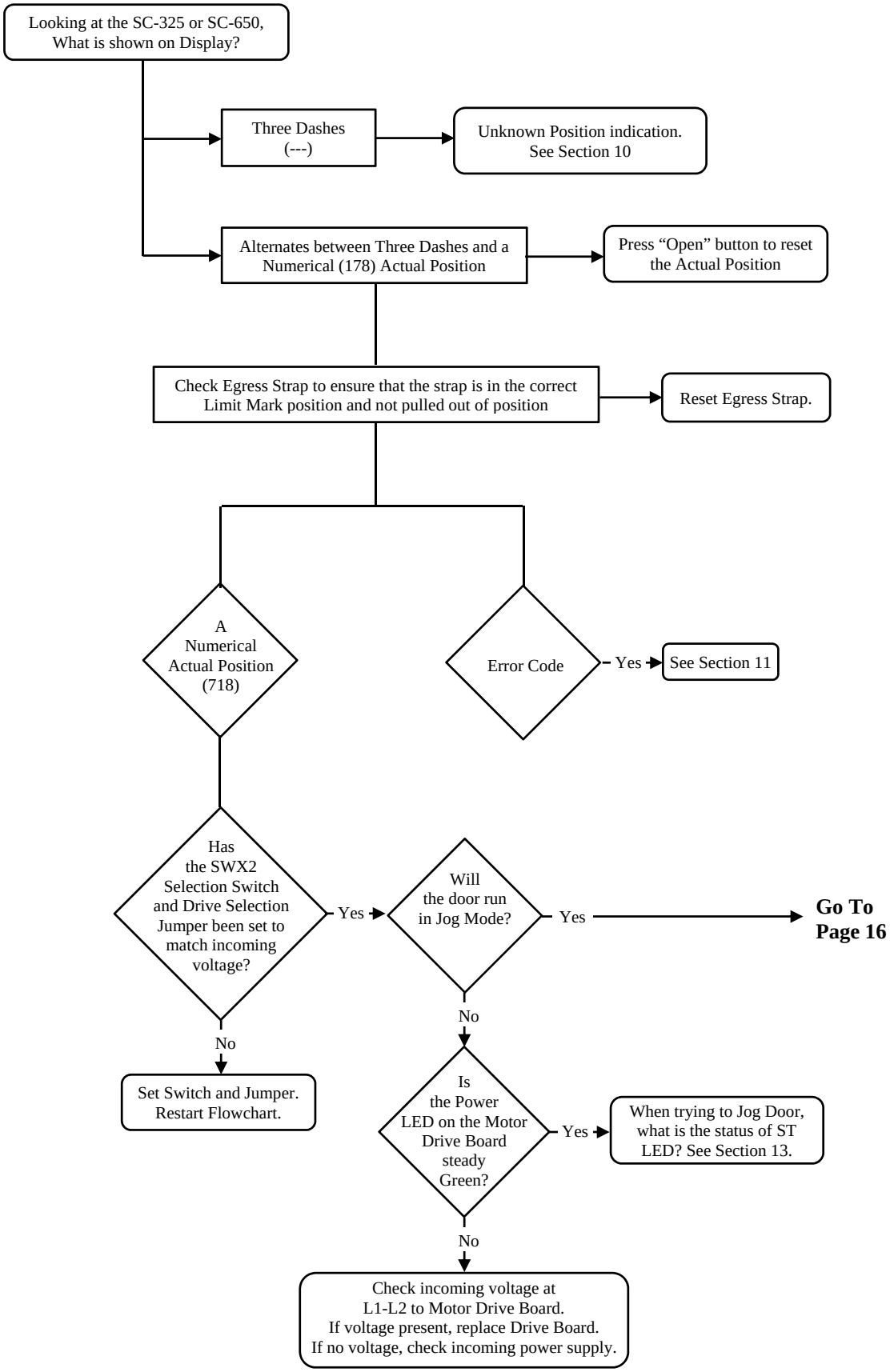
Note: DO NOT USE JOG MODE to do these tests.

1. Press and hold the 'MODE' Button until P1 is shown on the Display. Set P1 to 45 seconds for the 'Time Out' Function.
2. Press the 'MODE' Button 1 time to P2. Use the 'UP' 'DOWN' Arrows to set P2 to 20.
3. Press the 'MODE' Button 1 time to P3. Use the 'UP' 'DOWN' Arrows to set P3 to 80.
4. Press the 'MODE' Button 1 time to P4. Use the 'UP' 'DOWN' Arrows to set P4 to 3.
   NOTE: This must be 3 for Freezer CMS Box to heat and blow air.
5. Press the 'MODE' Button 1 time to P5. Set P5 to 25.
6. Press the 'MODE' Button 1 time to P6. Set P6 to 5.
7. Press the 'MODE' Button 1 time to P7. Set P7 to 25.
8. Slowly press the 'MODE' Button skipping P10, P11, and P12 until you see PS1 on the display. It will indicate 'NO' on the screen. Press the 'Up' Arrow to change 'NO' to 'YES' on the display. You will now begin to set the upper and lower limits of the door panel (fabric). Press the 'MODE' Button again and the panel will move towards the HOME switch (in the door header) and then back down towards the current setting of the OPEN Limit. Use the 'UP' and 'DOWN' Arrows to set the UPPER Limit between 20-24 on the Display. Then press the 'MODE' Button again and the panel will move downwards toward the current CLOSE Limit. Use the 'UP' and 'DOWN' Arrows to achieve the proper LOWER Limit and ensure that the panel is resting firmly against the floor to create a good seal (especially important for Freezer Doors.). If the door closes to the floor on the first attempt, press the 'UP' Arrow to bring the panel slightly off the floor and then press the "DOWN' Arrow to achieve this seal. This will prevent slack in the panel which could result in the panel auto reversing when it hits the floor. The number displayed will then become your LOWER Limit.
9. Press the 'MODE' Button one last time to Exit Programming Mode. The LOWER Limit that was just set will remain on the display and the Green LED on the Controller should be lit beside "ACTUAL POSITION'.

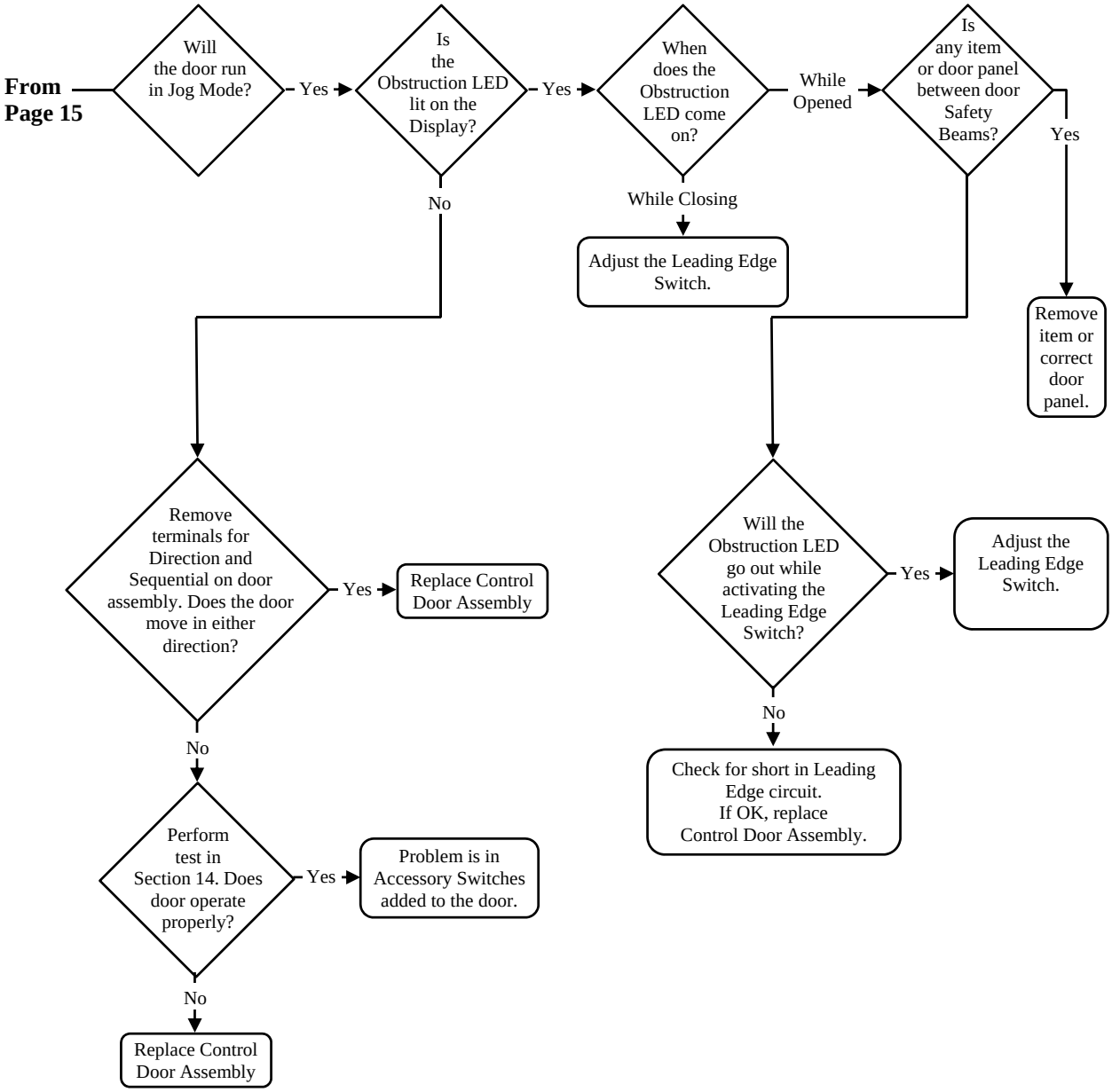
Diagram 8A



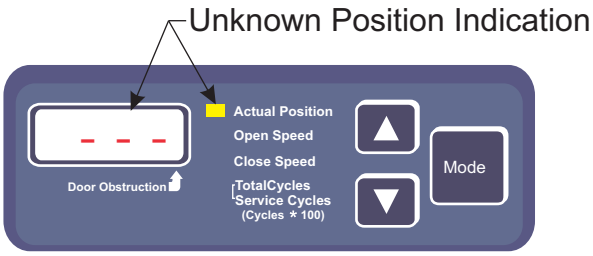
9 Troubleshooting Flowchart


Looking at the SC-325 or SC-650, What is shown on Display?
Three Dashes (---)
Unknown Position indication. See Section 10
Alternates between Three Dashes and a Numerical (178) Actual Position
Press "Open" button to reset the Actual Position
Check Egress Strap to ensure that the strap is in the correct Limit Mark position and not pulled out of position
Reset Egress Strap.
A Numerical Actual Position (718)
Error Code
Yes
See Section 11
Has the SWX2 Selection Switch and Drive Selection Jumper been set to match incoming voltage?
Yes
Will the door run in Jog Mode?
Yes
Go To Page 16
No
No
Set Switch and Jumper. Restart Flowchart.
Is the Power LED on the Motor Drive Board steady Green?
Yes
When trying to Jog Door, what is the status of ST LED? See Section 13.
No
Check incoming voltage at L1-L2 to Motor Drive Board. If voltage present, replace Drive Board. If no voltage, check incoming power supply.

Troubleshooting Flowchart (cont.)


From Page 15
Will the door run in Jog Mode?
Yes
Is the Obstruction LED lit on the Display?
Yes
When does the Obstruction LED come on?
While Opened
Is any item or door panel between door Safety Beams?
Yes
Remove item or correct door panel.
While Closing
Adjust the Leading Edge Switch.
No
Remove terminals for Direction and Sequential on door assembly. Does the door move in either direction?
Yes
Replace Control Door Assembly
No
Perform test in Section 14. Does door operate properly?
Yes
Problem is in Accessory Switches added to the door.
No
Replace Control Door Assembly
Will the Obstruction LED go out while activating the Leading Edge Switch?
Yes
Adjust the Leading Edge Switch.
No
Check for short in Leading Edge circuit. If OK, replace Control Door Assembly.

10 Unknown Position Indication



There are occasions when the Controller may not know the exact position of the door. For example, when returning from the Jog Mode. In these cases the Display Indicator will display a series of three bars as shown to the right. This is known as the Unknown Position Indication.

When the door is actuated, the door will proceed to the full open position, however the speed of the door will be reduced. When the door has returned from the Home Switch position to the Open Limit position, the Display Indicator will show the Actual Position of the door. This indicates that the door has reset its position and is ready for normal operation.

If the Door Encoder fails, the control will not be able to recognize the position of the door. This problem can also arise from a loose or bad connection in the DC Harness. Check the DC Harness to insure it is connected properly and that there are no loose wires in the connection to the Encoder.

Diagram 10A

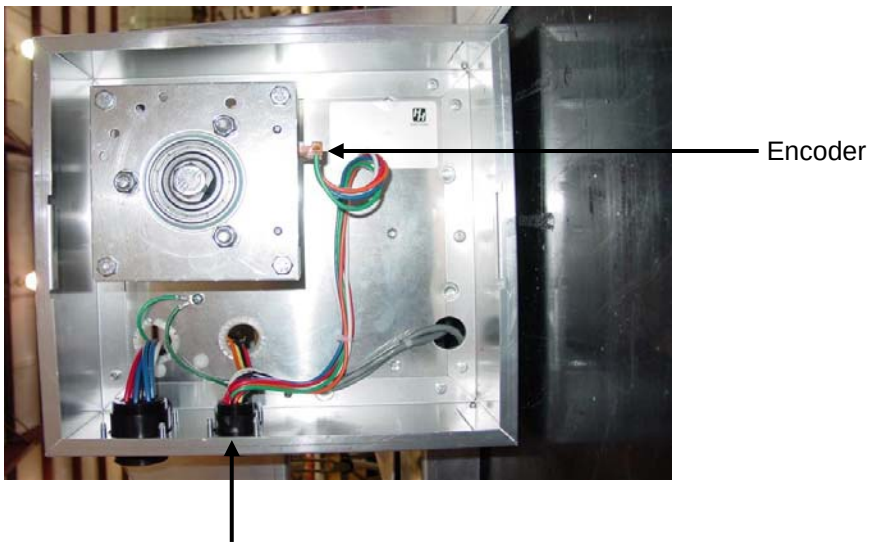
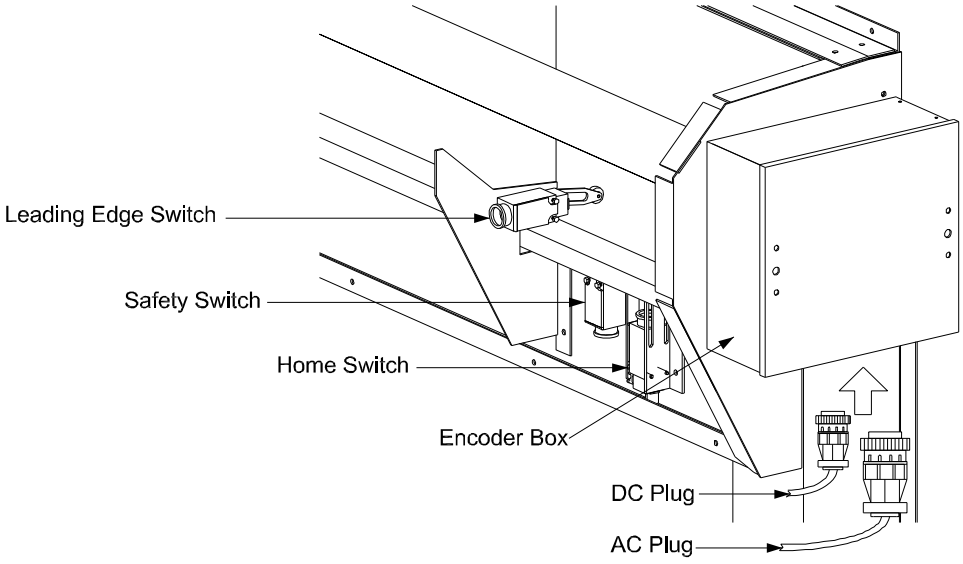


Diagram 10B



11 Error Codes

Mechanical Errors

Code	Condition	Panel Movement	Problem Area	Possible Solutions
EO1	Opening, Home Switch		Home Switch	Try to activate door normally (open), should fix itself.
				Use Jog Mode to lower door panel below Home Switch. **See Section 12.**
				Manually release Brake and pull panel below Home Switch.
				Home Switch arm may be loose. Retighten. **See Diagram 10B.**
EC1	Closing, Home Switch		Home Switch	Lower Limit is not set correctly. Reset Door Limits PS1.
				Home Switch arm may be loose. Retighten. **See Diagram 10B.**
				Faulty connections, check DC Harness (Grey Cable) at the door and the DC connections on the PCB154.
EO2	Opening, Safety Switch		Safety Switch	Safety Switch arm may be loose. Retighten. **See Diagram 10B.**
				Faulty connections, check DC Harness (Grey Cable) at the door and the DC connections on the PCB154.
EC2	Closing, Safety Switch		Safety Switch	Safety Switch arm may be loose. Retighten. **See Diagram 10B.**
				Faulty connections, check DC Harness (Grey Cable) at the door and the DC connections on the PCB154.
EO3	Opening, Safety Switch		Home & Safety	Manually release Brake and pull panel below Home Switch.
				Check DC Harness connection, especially if "Door Obstruction" LED is on. **See Diagram 8A.**
EC3	Closing, Safety Switch		Home & Safety	Manually release Brake and pull panel below Home switch.
				Check DC Harness connection, especially if "Door Obstruction" LED is on.

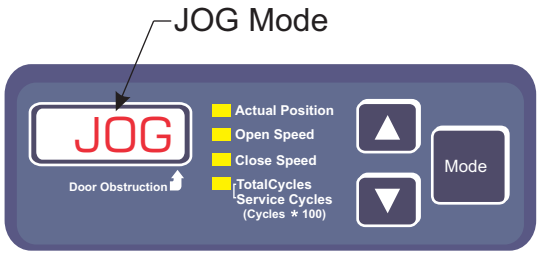
Feedback Errors

Code	Condition	Panel Movement	Problem Area	Possible Solutions
EOF1	Opening, Encoder Fault	Up or Down	Encoder	Check DC Harness, make sure optics are clean. Inspect Encoder wire connections in Door J-Box and on PCB154 Board.
		None	Brake	To prove the Brake is not releasing automatically, disengage manual brake release and attempt to operate door. If it operates, one or more of the following is the problem:
		None	Brake	Check Brake Relay on PCB154 Control Board. **See Section 15**
			Brake Rectifier	Check Brake Rectifier in motor. **See Section 15**
			Brake Assembly	Make sure Brake is not adjusted too tight or that the brake assembly is defective. **See Section 17**
			Egress Strap	Check Egress Strap to ensure that the strap is in the correct reset Limit Mark position and not pulled out of position.
			Tension Pipe Pockets	Ensure correct pipe location in panel pockets. Inspect pipes for bends.
			Drive Board	Ensure both PWR and ST LEDs are “ON” steady **See Section 13**
ECF1	Closing, Encoder Fault	Up or Down	Encoder	Check DC Harness, make sure optics are clean, inspect Encoder wire connections in door's J-Box and on PCB154 Control Board.
ECF1		None	Brake	To prove the Brake is not releasing automatically, disengage manual brake release and attempt to operate door. If it operates, one or more of the following is the problem:
			Brake Relay	Check Brake Relay on PCB154 Control Board. **See Section 15**
			Brake Rectifier	Check Brake Rectifier in motor. **See Section 15**
ECF1			Brake Assembly	Make sure Brake is not adjusted too tight or that the brake assembly is defective. **See Section 17**
EOF2	Opening, Direction Fault	Up then panel stops and rolls down a few inches	Drive Overload Trip	If a Drive Overload occurs due to over-current, over-voltage, or temperature levels out of range, the drive may trip while the door is opening.
		Up	Encoder	Signal Wires reversed.
			Drive	Reverse two phases to the motor
		Down	Drive	The Drive or the Gear Motor may not be functioning.
			Drive	If the gear motor seems to be functioning, then two phases to the motor must be reversed.

Feedback Errors (Cont.)

Code	Condition	Panel Movement	Problem Area	Possible Solutions
ECF2	Opening, Direction Fault	Down	Egress Strap	Check Egress Strap to ensure that the strap is in the correct reset Limit Mark position and not pulled out of position.

12 Jog Mode



The Jog Mode will permit an operator to manually control the position of the door with the **Up (△)** and **Down (▽)** arrow buttons. To enter the Jog Mode, press both the **Up (△)** and **Down (▽)** arrows at the same time for at least 5 seconds. The controller will indicate the Jog Mode in the display as shown below.

In the Jog Mode the door can be opened and closed and is not affected by the Home Limit Switch or the Safety Beam. The operator must carefully watch the door movement when nearing the full open and full closed positions. To exit the Jog Mode, press and hold the **Up (△)** and **Down (▽)** arrow buttons for at least 5 seconds. The Controller will return to the normal operating mode with the Actual Position shown in the display.

When returning to the normal operating mode, the controller will not know the exact position that the operator has left the door when exiting the Jog Mode. Therefore, the Controller will display a series of three horizontal bars. Upon the next command the door will slowly proceed to the full open position to reset its memory. The door will always follow this procedure after exiting the Jog Mode.

13 SC-235 & SC-650 Drive Diagnostics LEDs

KB Drive Diagnostic LEDs

Door Idle

PWR LED	ST LED	Operating Condition	Possible Causes
OFF	OFF	Drive is Off	No AC Power Applied
			Fuse Blown
			Defective Drive
Green	Steady Yellow	Normal Condition	
Green	Quick Flash Red/Yellow	AC Input Under voltage	Input AC=115 VAC/Drive Jumper set on 230 VAC
Green	Slow Flash Red/Yellow	AC Input Overvoltage	Input AC=230 VAC/Drive Jumper set on 115 VAC
Green	Steady Red	Current Overload	Drive tripped due to current overload
Green	Red/Yellow/Green	Under voltage or Overvoltage	Drive tripped due to out of range voltage condition

Door Moving

PWR LED	ST LED	Operating Condition	Possible Causes
Green	Slow Flash Green	Normal Condition	
Green	Quick Flash Red	Overcurrent	Drive operating at 120%-200% of full rated load
Green	Slow Flash Red	Short Circuit	Two phases may be shorted
			Phase may be shorted to ground
			Gear motor may be defective

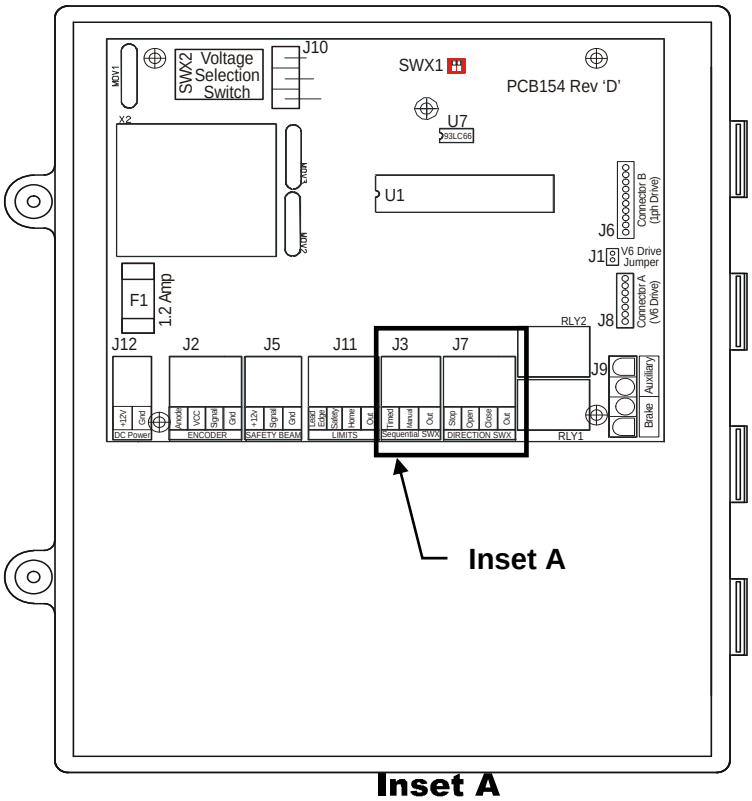
Slow Flash = LED flashes 1 second off, 1 second on

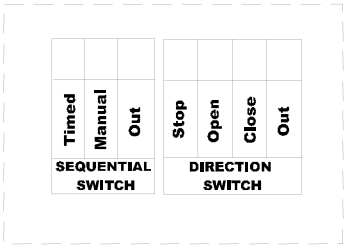
Quick Flash = LED flashes 0.25 second off,
0.25 second on

Steady = LED is constantly on

14 Direction SWX Test

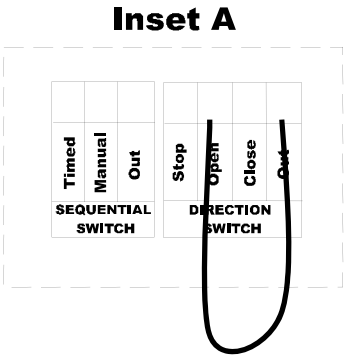
To perform all tests below you must have a short piece of wire. This wire should be approximately 5 inches long and 16AWG – 18AWG in size. Each test performed will be located in the same area of the PCB 154 of the Door Assembly as show below.





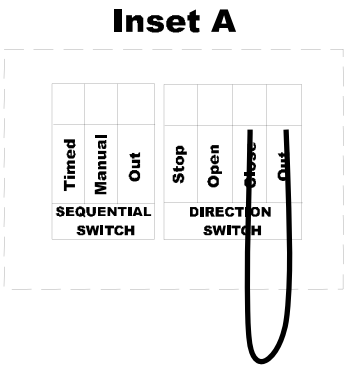
14.1 Open Direction Test

Momentarily place the jumper on the pins of **Out to Open**. The door should open to its full open position. Care should be taken that this wire only touches these two points.



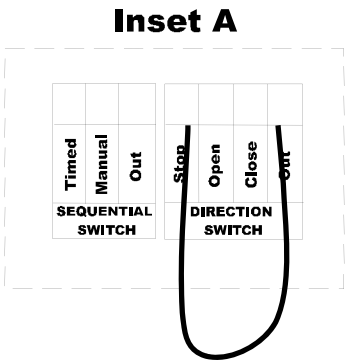
14.2 Close Direction Test

Momentarily place the jumper on the pins of **Out to Close**. The door should close to its full close position. Care should be taken that this wire only touches these two points.



14.3 Stop Position Test

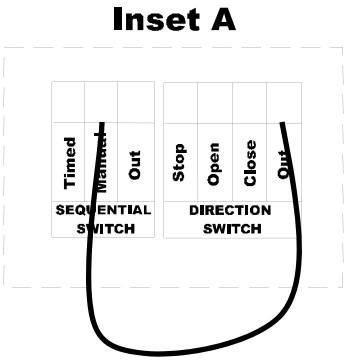
1. Momentarily place the jumper on the Open or Close direction. The door will start to move in that direction.
2. Before the door gets to its full limit, momentarily place the jumper across the **Out to Stop** position. The door should stop at this point. Care should be taken that this wire only touches the specified points.



14.4 Sequential SWX Test and Manual Position Test

Momentarily place the jumper on the pins of **Out to Manual**. The door should open or close to its full limit position. The direction will depend on the last signal or input it received from this location.

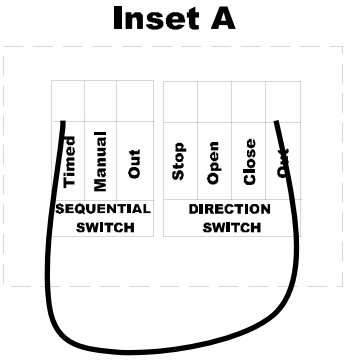
Each time you make contact on this point the door will move opposite of the previous move. Care should be taken that this wire only touches these two points.



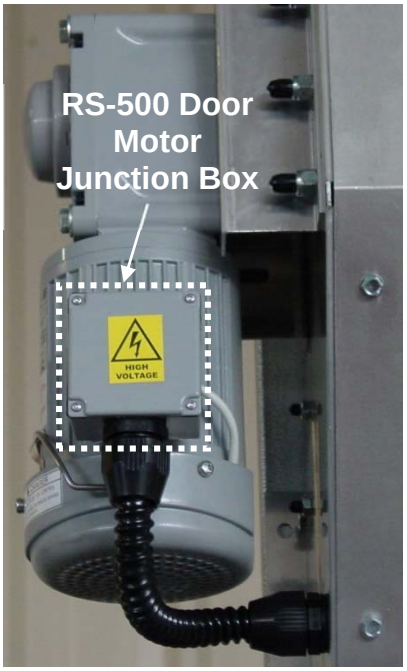
14.5 Timed Direction Test

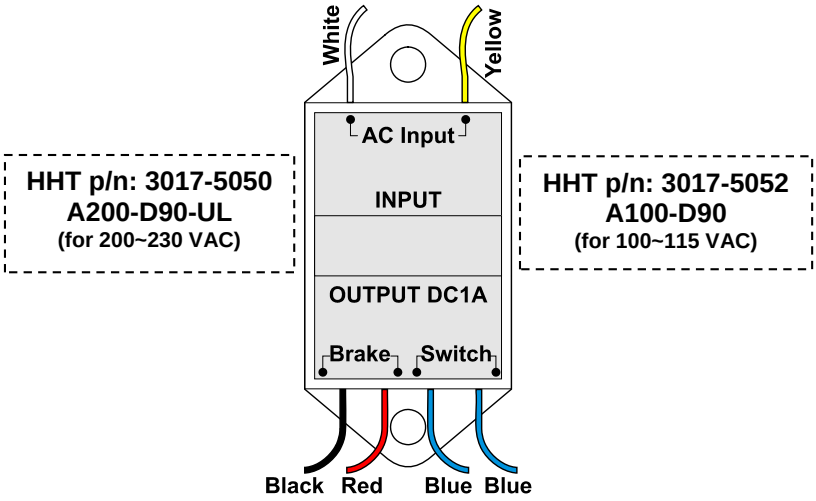
The door must be closed before performing this test.

Momentarily place the jumper on the pins of **Out to Timed**. After the door is opened and all safety sensors are clear, a timer will count down and close the door automatically. In order for the timed feature to work, the door must have initially been in a closed or stopped position. If the door is open (by an open test or some other means), the timer will not operate and the door will remain open. Care should be taken that this wire only touches these two points.



15 RS-500/600 Motor Brake Rectifier Wiring Diagram

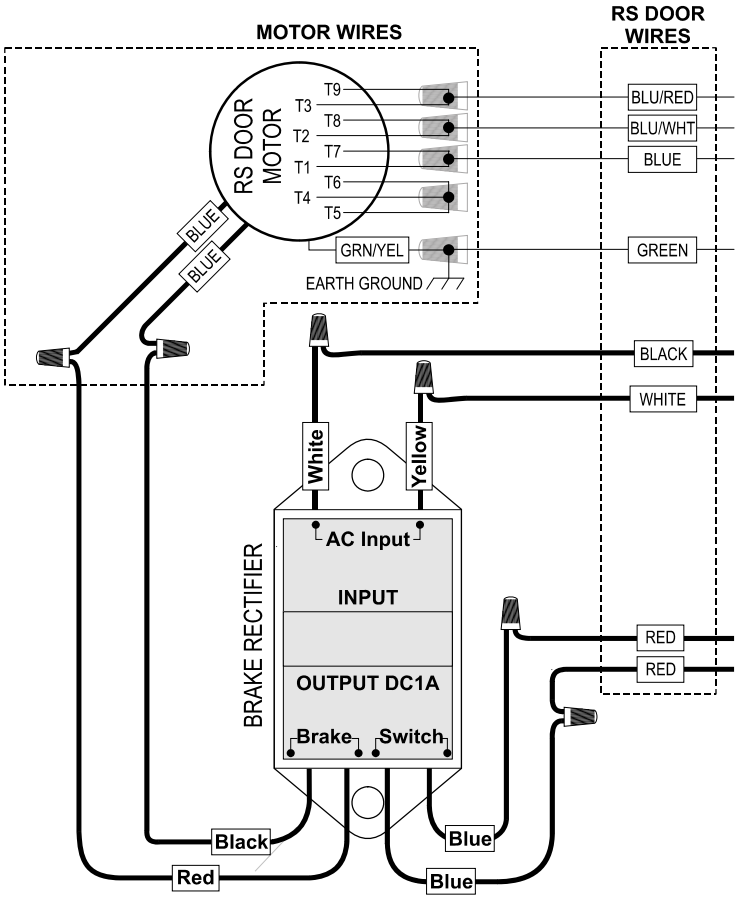




The <u>SC-325 Controllers</u> are factory preset to 115 VAC and the <u>RS-500 Doors</u> factory prewired to require a 115 VAC power supply.
The <u>SC-650 Controllers</u> are factory preset to 230 VAC and the <u>RS-600 Doors</u> factory prewired to require a 230 VAC power supply.

NOTE!

If your serial # comes after '0010156', then the wiring in the diagram below changes from: Blue w/White Stripe changes from T8 & T2 to now use T9 & T3 instead. The Blue w/Red Stripe now uses T8 and T2.



The SC-325/SC-650 Controllers and RS 500/600 Doors can be field upgraded to accommodate either 115 VAC or 230 VAC power supply. If the desired power supply voltage is different from the factory preset/prewired voltage, the appropriate version Brake Rectifier must be ordered separately, field-installed on the RS Door, and the SC Controller switch & jumper settings changed accordingly.

⚠ WARNING!

Dangerous High Voltages!
Allow Approximately 5 Minutes For The Controller To Power-Down Before Changing Switch Settings, Jumper Placement, Or Wiring.

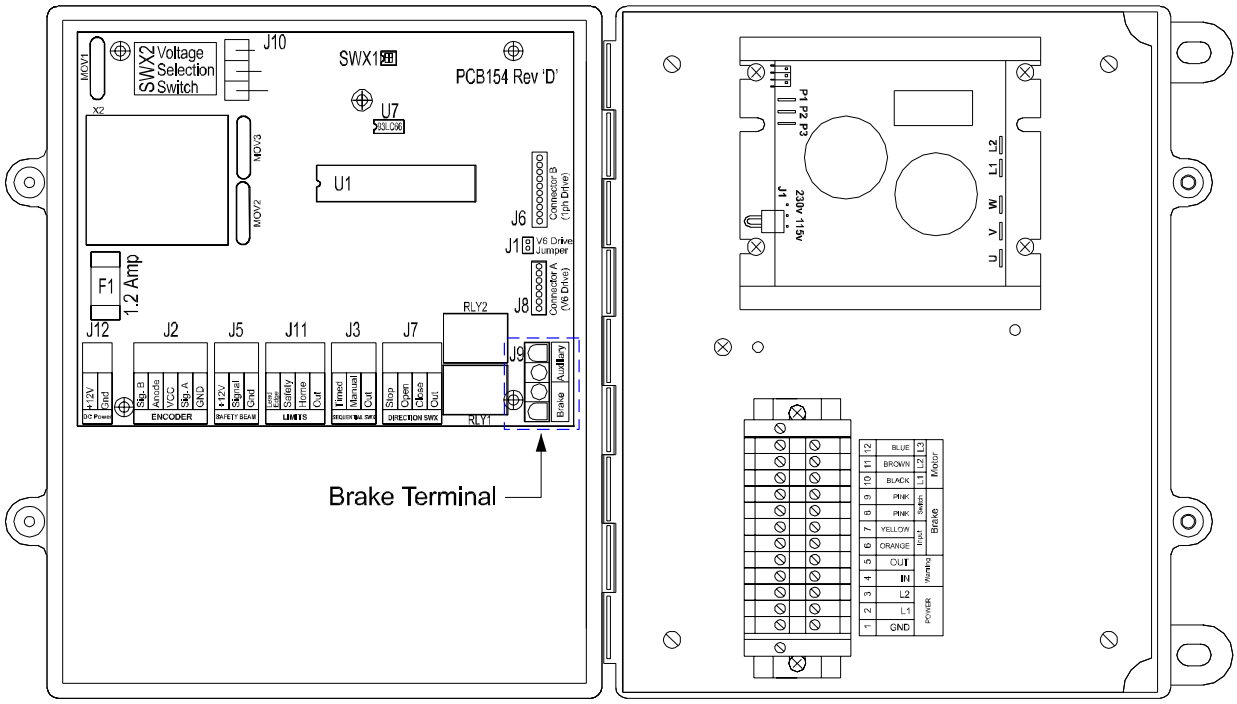
⚠ WARNING!

Use The Correct RS Door Brake Rectifier For The Specific Required Voltage!

Using a 230 VAC brake rectifier with a 115 VAC power supply can result in improper door operation due to the mechanical brake not releasing properly. Using a 115 VAC brake rectifier with a 230 VAC power supply can result in damage to the mechanical brake and/or brake rectifier resulting in door failure.

16 Brake Relay Test

The gear motors on the RS-500/600 Series Doors have a Brake Rectifier which will activate the brake in the gear motor to stop the unit when not in use. There is a relay (acting as a switch) on the PCB 154 board in the Door Assembly of the Controller that will turn this brake on and off. This test procedure will allow you to test the relay to see if it is failing or if the problem could be in the Brake Rectifier. First, test the Brake Relay on the PCB 154. The connections are found at the bottom right corner of the board.



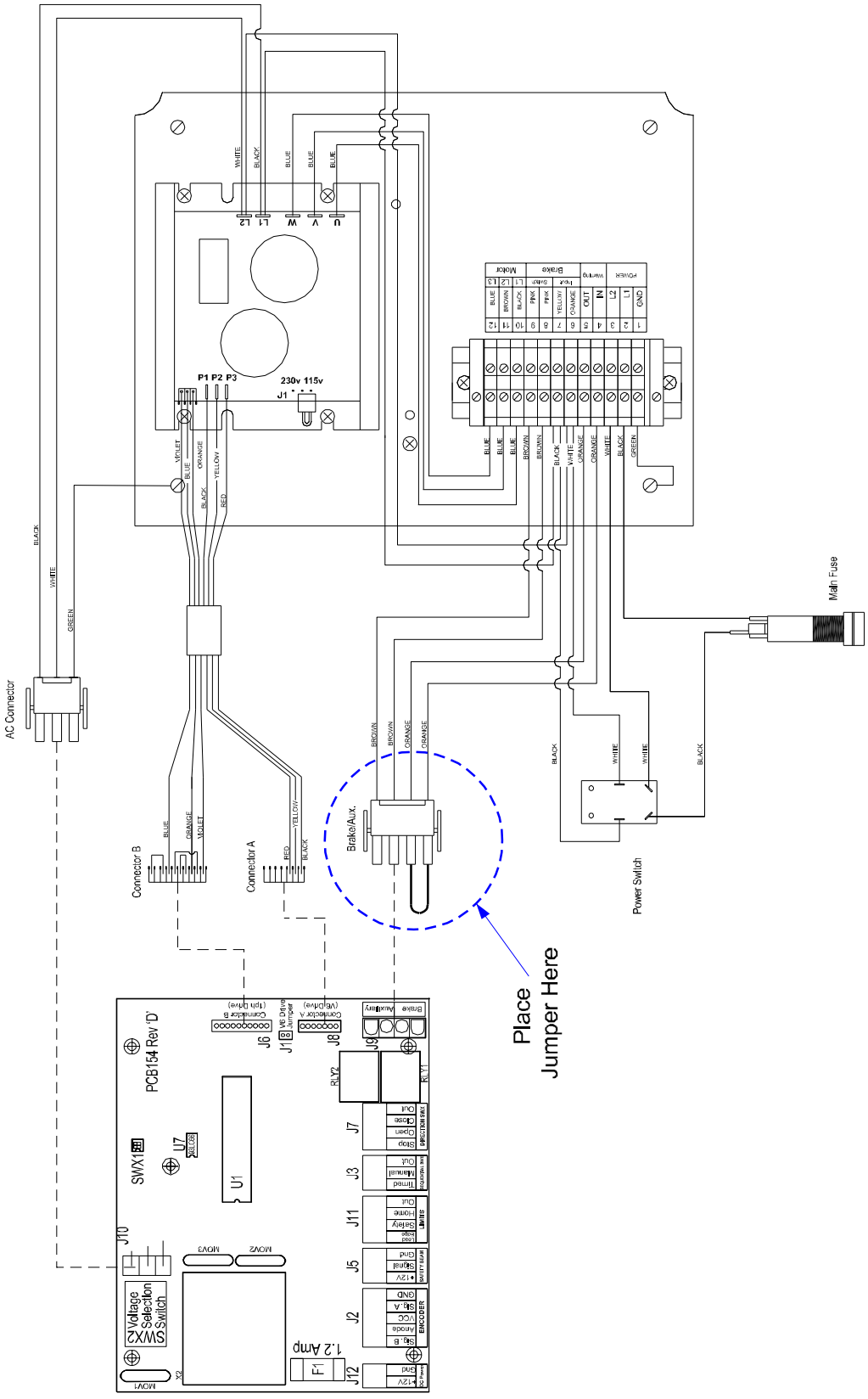
If the Brake Relay is at fault, the door will struggle to operate or could cause the drive board to trip. This situation could create an Error code of EOF1 or ECF1 in the Controller Display.

To test the brake relay:

1. Remove Quick Connect connector from the PCB 154 Board.
2. The door must be operated in one direction while in Jog Mode. See **Section 12**.
3. While pressing the up or down arrow (while in Jog Mode), place a jumper across the connectors inside the Quick Connect. The jumper will simulate relay switching. See **Diagram 16A**.

   The Brake should release and allow the door to operate. If the door operates properly after performing this step, replace the Door Assembly of the Controller.
4. If the door does not operate after performing Step 3:
   1. Check the Brake Rectifier to see if it is performing correctly.
   2. Confirm that the correct Brake Rectifier is installed for the specific supply voltage.

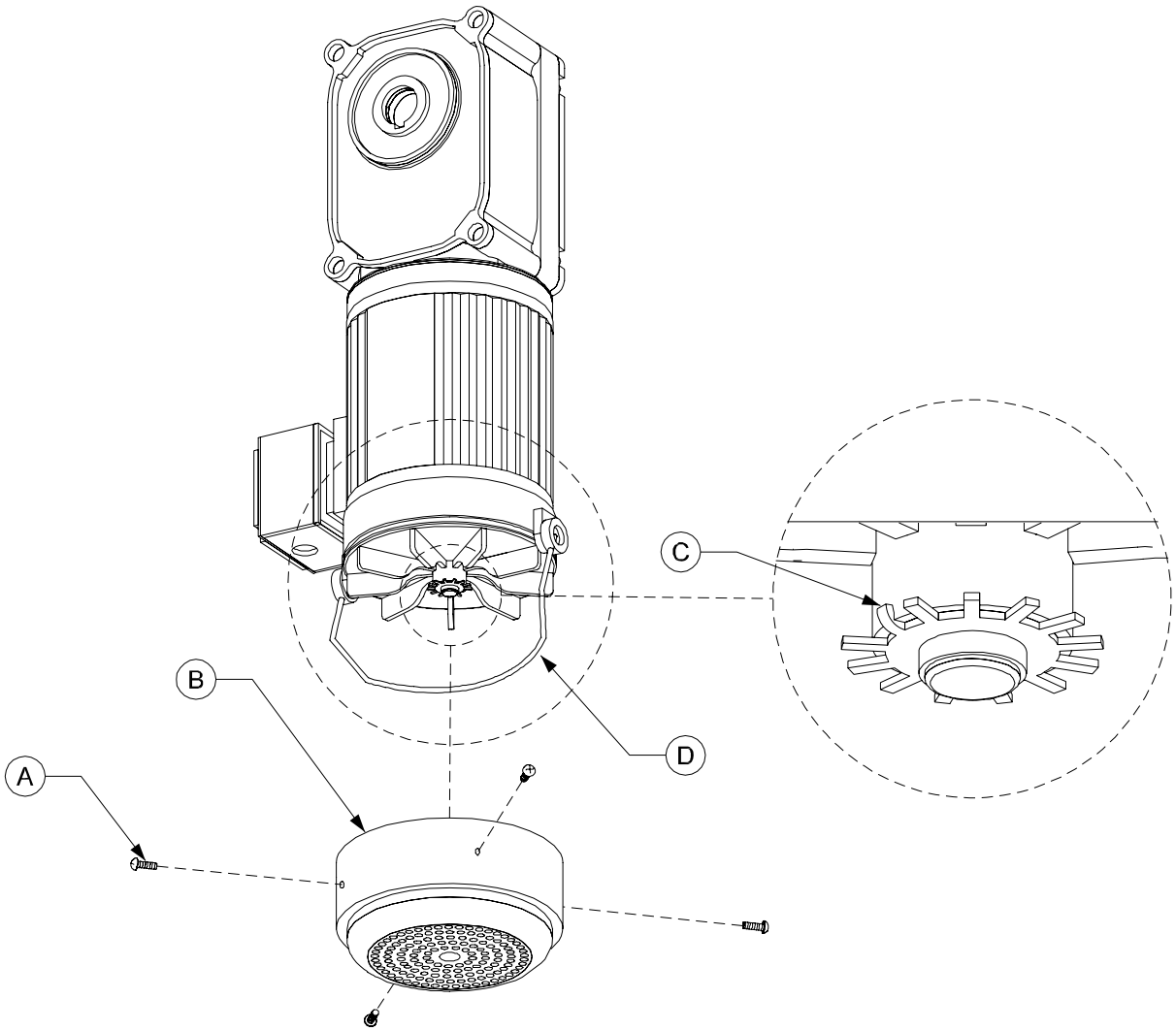
Diagram 16A Brake Rectifier Jumper



17 Adjustment of Brake

After extended operation of the brake lever, the brake may become worn. As the brake wears, some adjustment to the brake is required. Lettered diagrams below correspond to lettered instructions. Follow instructions to adjust brake:

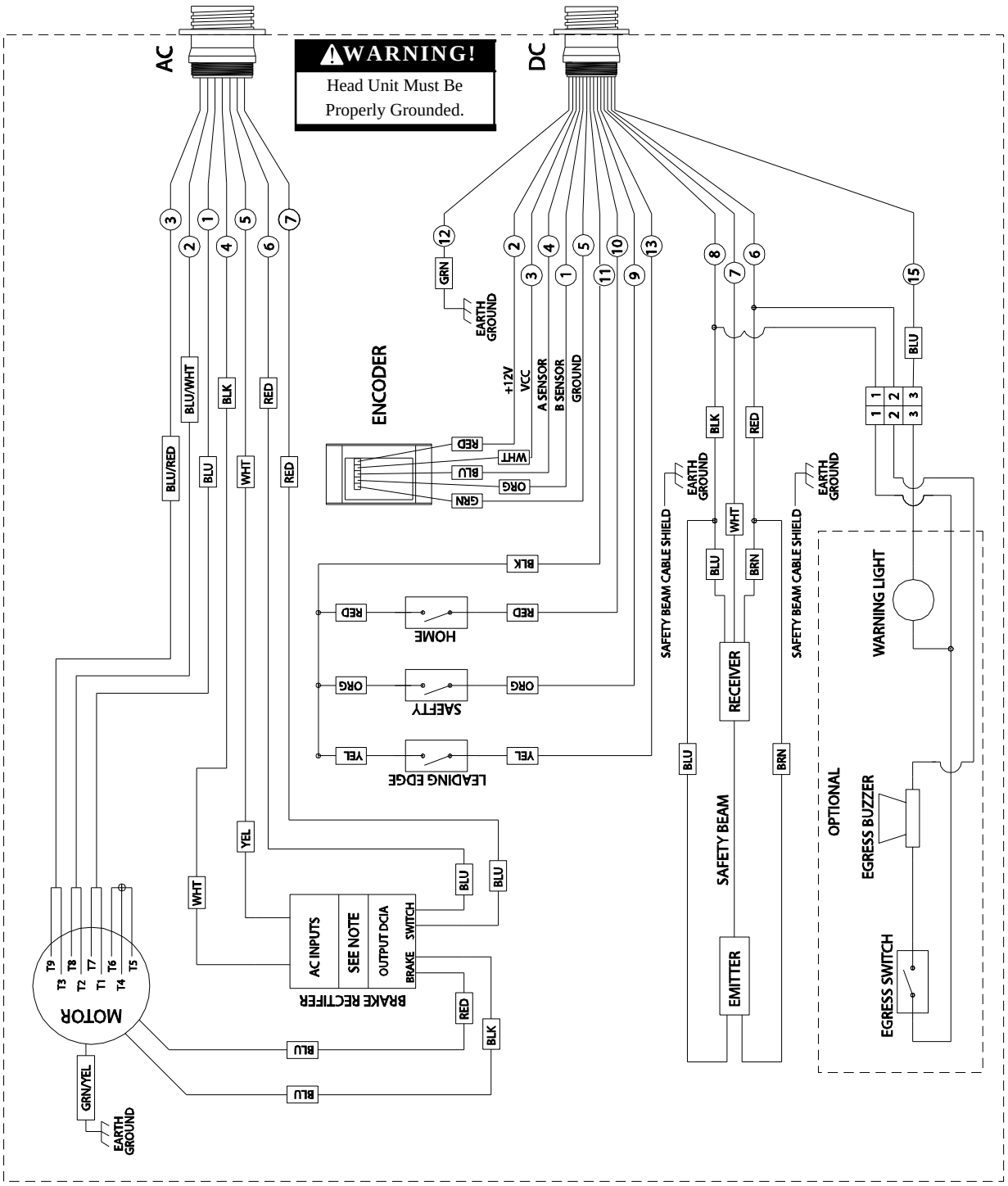
1. Close door curtain to fully lowered position.
2. Engage Brake lever.
3. Disconnect electrical power to motor.
4. Remove four Phillips screws (**A**).
5. Remove cover (**B**).
6. Straighten the bent tab (**C**) of spider nut.
7. Tighten spider nut (**C**) snuggly against blower wheel. Make sure a tab of spider nut is aligned with a notch in the shaft.
8. Bend tab (**C**) upward into notch of shaft.
9. Replace cover (**B**).
10. Replace four Phillips screws (**A**).
11. Disengage brake lever (**D**).
12. Adjustment complete.



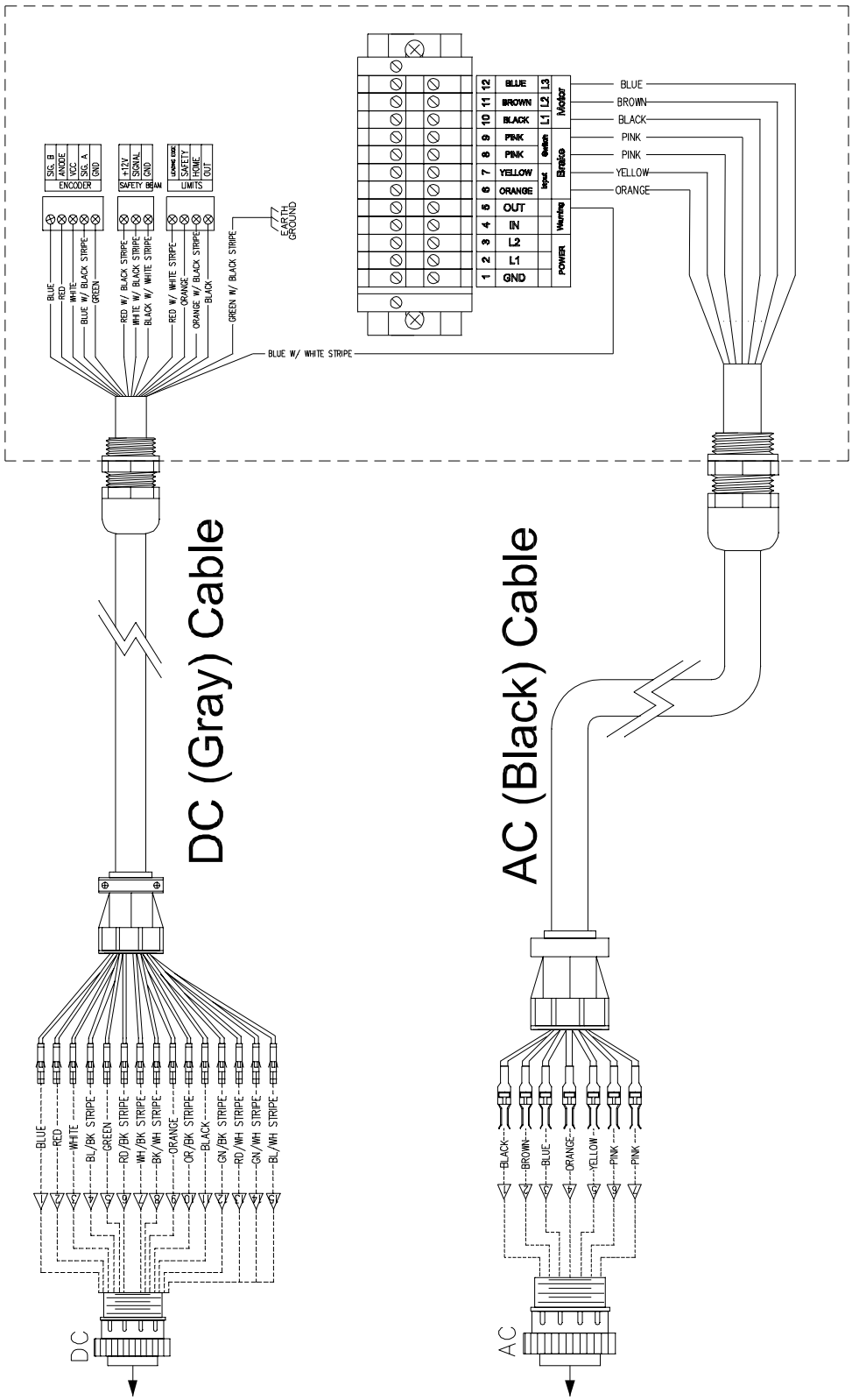
18 RS-500/600 Series Door Wiring Diagram (Brother Motor Only)

See Page 29

See Page 29



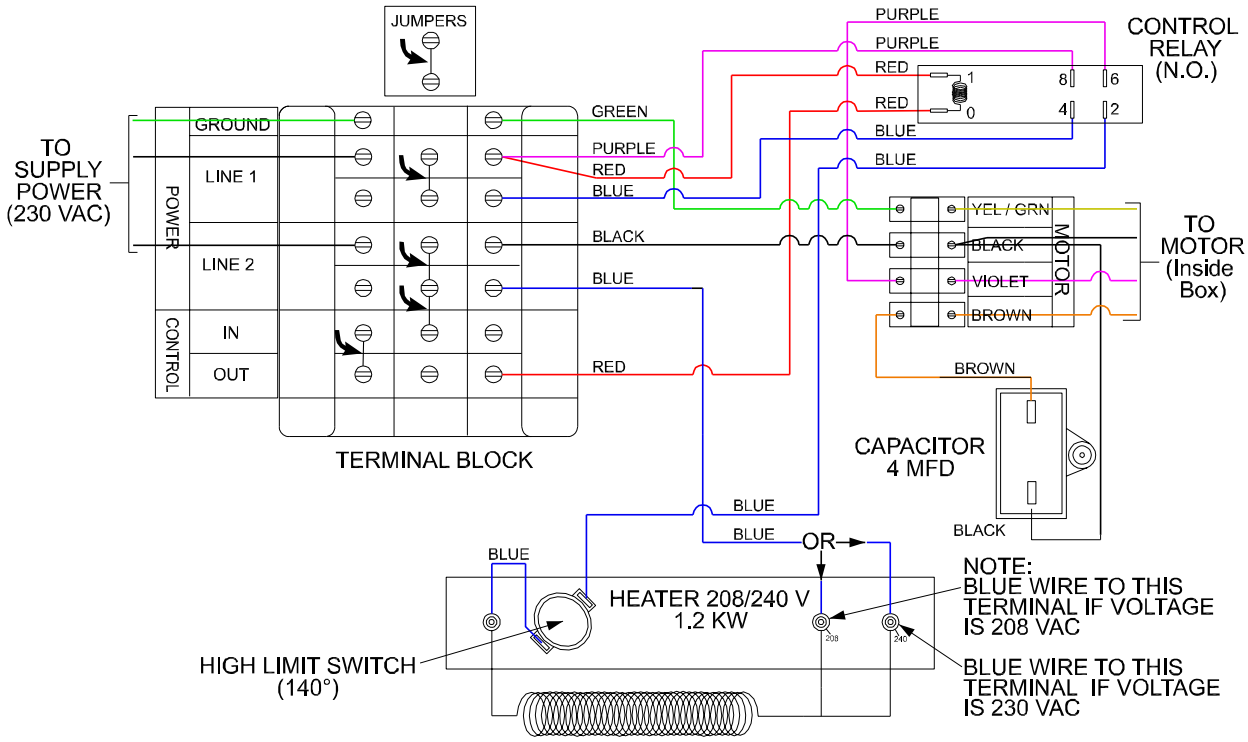
19 RollSeal Smart Controller Wiring Diagram (Brother Motor Only)



See Page 28

See Page 28

20 RS-500/600 Series Door Condensation Management System Wiring Diagram

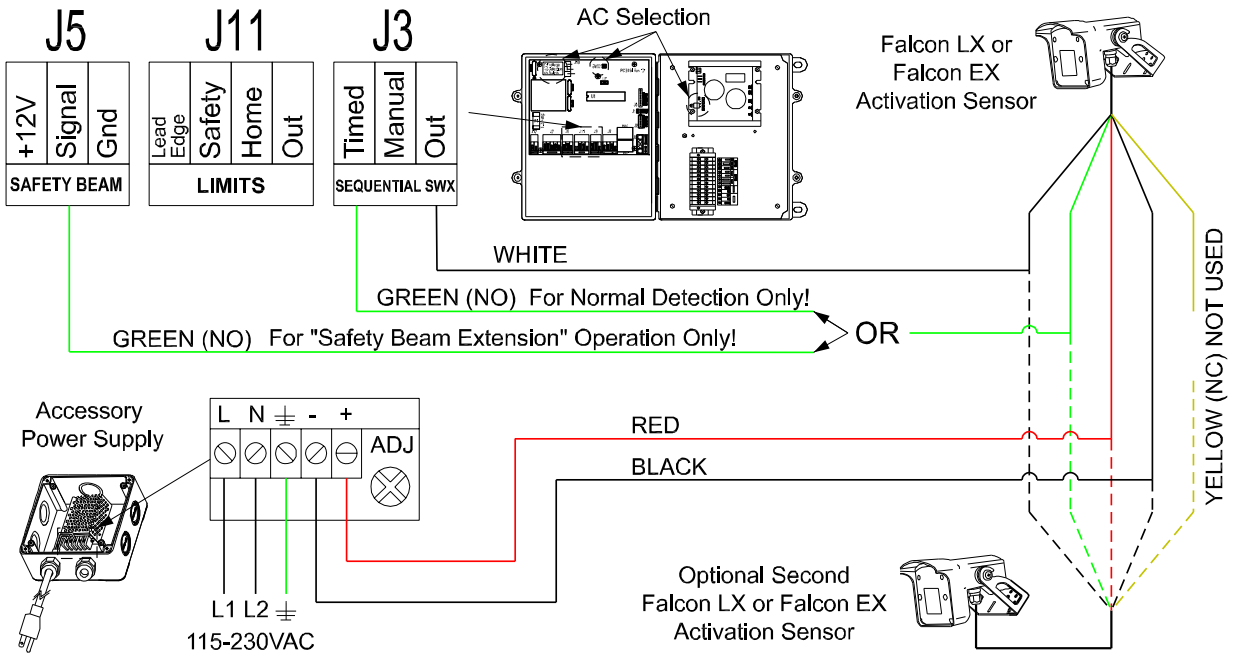


21 Wiring Optional Accessories

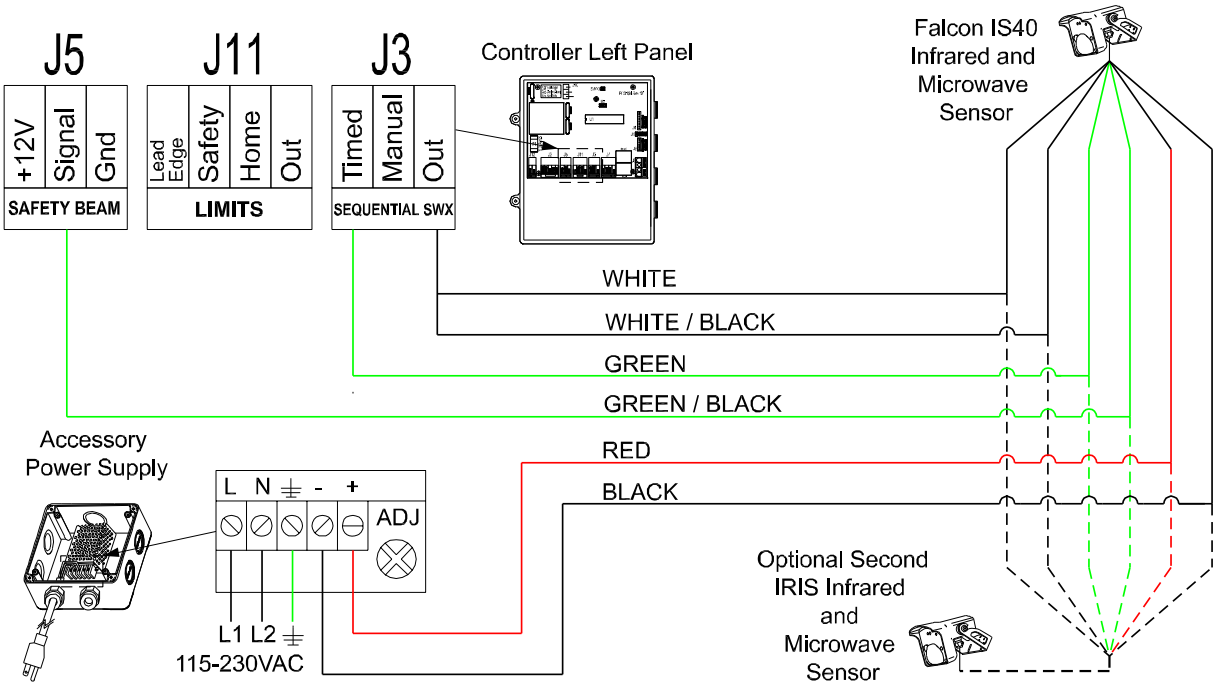
Motion Detectors, Infrared Sensors and Loop Sensors are optional accessories that can improve the efficiency and performance of your RollSeal Door. Sensors can also help prevent damage to the RollSeal Door by preventing the door from closing while lifts or objects are present in the vicinity.

Refer to the unit Owner's Manual for more information on installation, set-up and operation.

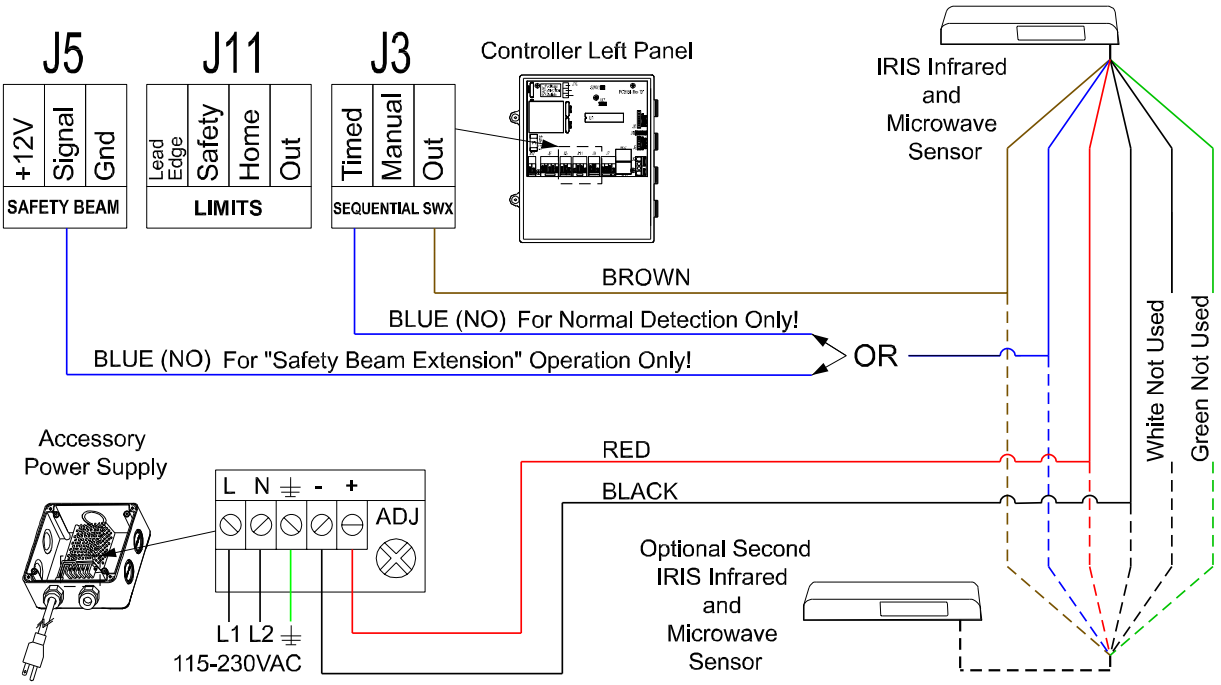
21.1 Wiring Falcon XL and EX Motion Detectors



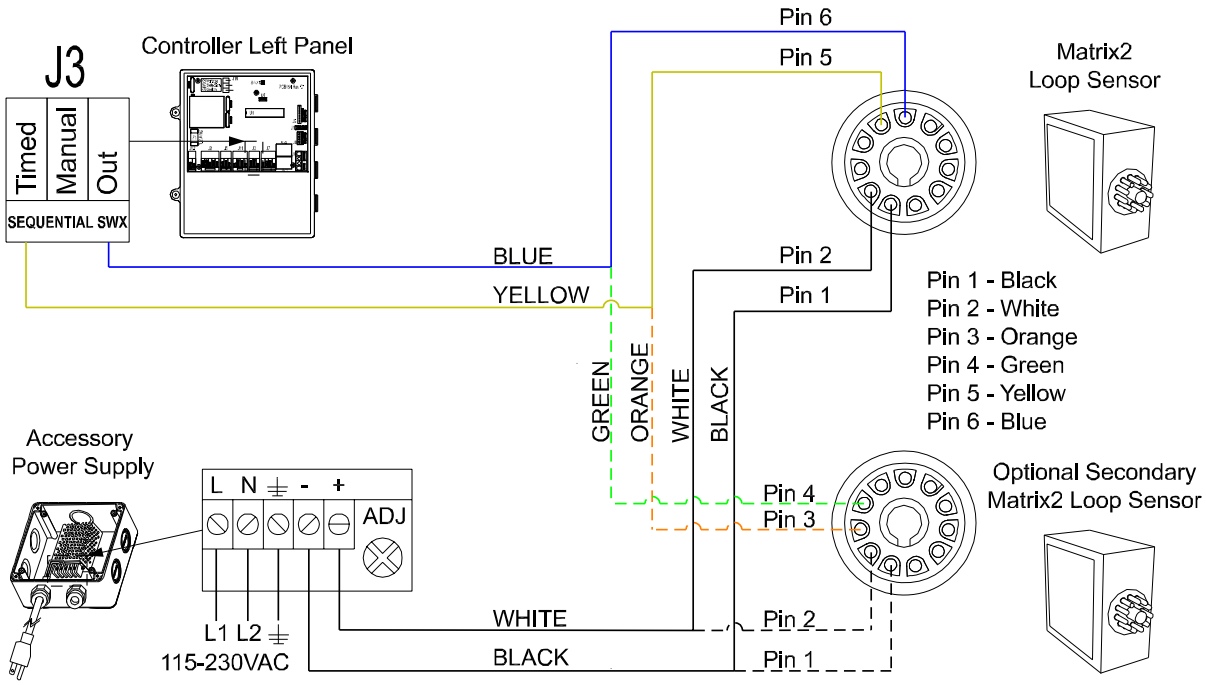
21.2 Wiring Falcon IS40 Infrared and Microwave Sensor



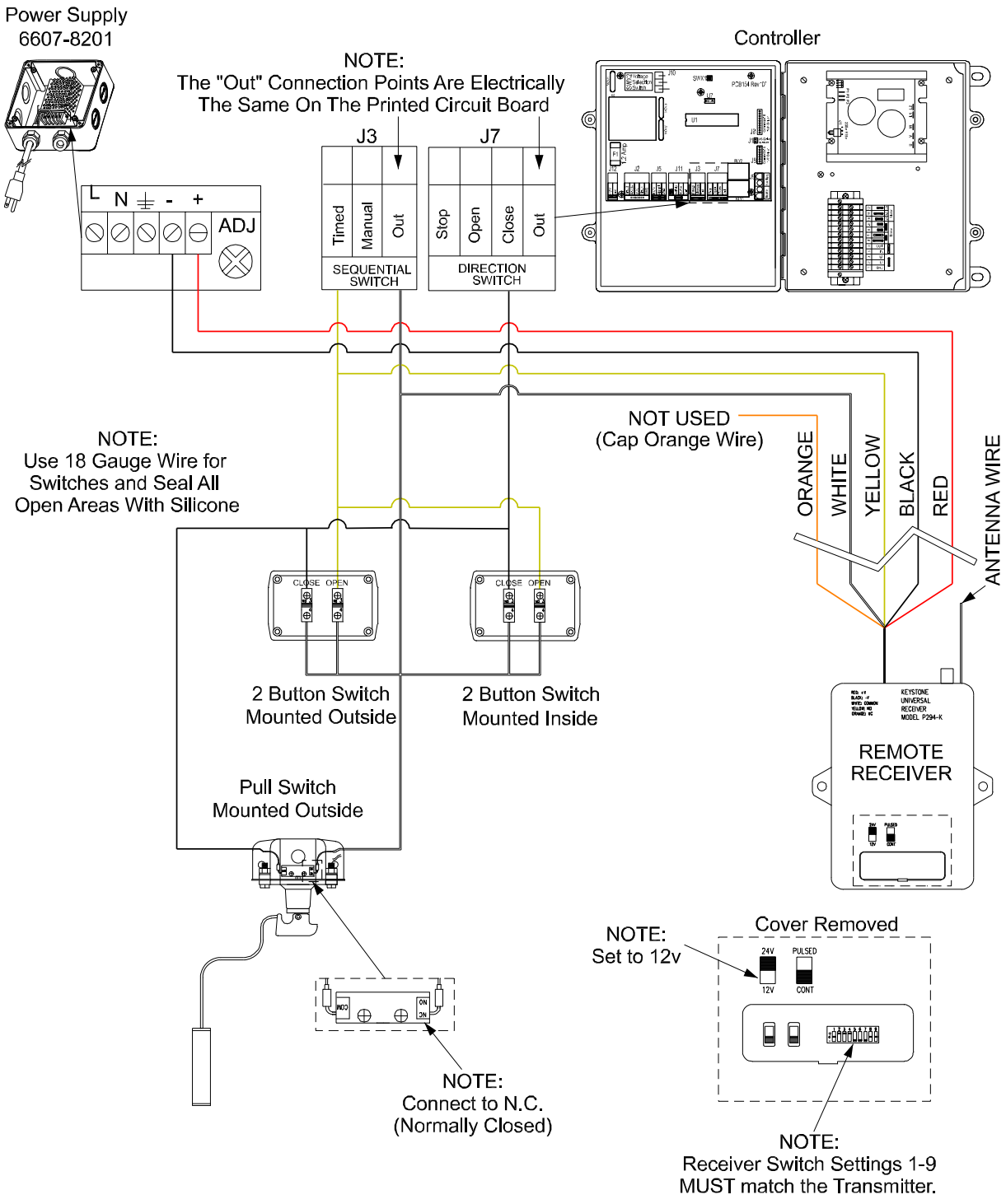
21.3 Wiring the IRIS Infrared and Microwave Sensor



21.4 Wiring the Matrix2 Loop Sensor



21.5 Wiring Switches and Remote Receiver



RollSeal